```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 31) Allen, M., Bowles, M., Dietrich, N., Dubuque, T., Geisel, S., Kucaba, T., Lacy, M., Le, M., Martin, J., Morris, M., Schellenberg, K., Steptoe, M., Tan, F., Underwood, K., Moore, B., Tan, E., Martin, J., Morris, M., Tan, F., Steptoe, M., Tan, F., Soares, B., Wilson, R. and
                                 AA003705 331 bp mRNA EST 22-JUL-1996 mg61a02.rl Soares mouse embryo NbWE13.5 14.5 Mus musculus cDNA AA003705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
MGI:262786
                                                                                                                                                                                                                                                                                                                                                                                                                           Waterston, R.
The Wash-HHMI Mouse EST Project
Unpublished (1996)
Contact: Marra M/Mouse EST Project
Washu-HHMI Mouse EST Project
Washu-HHMI Mouse EST Project
Washugton University School of Medicinep
Tel: 314 286 1810
Fax: 314 286 1810
                                                                                                                                                   AA003705.1 GI:1447205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Seq primer: ETPrimer
                                                                                                                                                                                                                                 Mus musculus
                                                                                                                                                                                                       house mouse
                                                                     DEFINITION
                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
JOURNAL
COMMENT
                                                                                                                       ACCESSION
RESULT 4
                                                                                                                                                   VERSION
KEYWORDS
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40

Tue Apr 30 14:18:38 2002

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/organism="Mus musculus"
/strain="C57BL/6J"
Location/Qualifiers
                 source
 FEATURES
```

/db_xref="taxon:10090" /db_orne="IMAGE:437450" /clone=lib="Soares mouse embryo NbMEl3.5 14.5" /sex="unknown"

/tissue_type="embryo" /dev_stage="13.5-14.5dpc total fetus" /lab_host="DH108"

72

BASE COUNT ORIGIN

Gaps ö 2.5%; Score 23; DB 10; Length 331; 100.0%; Pred. No. 1.3e+03; Live. 0; Mismatches 0; Indels Query Match 2.5% Best Local Similarity 100.0 Matches 23; Conservative

ö

911 tatctgccaaaaaaaaaaaa 933 ò

298 TATCIGCCAAAAAAAAAAA 320

us-09-248-]

SEC ID NO:55

SEQ.10 NO: 59

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Sequence 73, Application US/09020956
Sequence 73, Application US/09020956
Sequence 73, Application US/09020956
Patent No. 6261562.

APPLICANT: NUMBER OF SEQUENCES: 178
TITLE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY OF PROSTATE CANCER AND METHODS NUMBER OF SEQUENCES: 178
CORRESPONDENCE ADDRESS:
ADDRESSEE: SEED and BERRY LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
CITY: Seattle
STATE: WA.
                                                                                                                                                                                                                                                                                   STAIL:
COUNTRY: USA
ZIF: 98104
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: A secentin Release #1.0, Version #1.30
SOFTWARE: Pacentin Release #1.0, Version #1.30
CURRENY APPLICATION NUMBER: US/09/020,956
TITING DATE: 09-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: 210121.427C2
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
NAME: Maki, David J.
REGISTRATION NUMBER: 31,392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE: (206) 622-4900
TELEFAX: (206) 682-631
INFORMATION FOR SEQ ID NO: 73
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 499 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE:
CRIGINAL SOURCE:
CRGANISM: HOMO
US-09-020-956-73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS:
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ò

Ouery Match

85.1%; Score 325; DB 4; Length 499;
Best Local Similarity 100.0%; Pred. No. 2.5e-125;
Matches 325; Conservative 0; Mismatches 0; Indels

Gaps

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tggccttggtggagctggtgccagcaccagtggcagctctggtgcctgtggtttctccta 220
                                                 221 caagtgagattttagatattgttaatcctgccagtctttctcttcaagccaggtgcatc 280
1 CAGTGCCAGCACTGGTGCCAGTACCAGTACCAATAACAGTGCCAGTGCCAGTGCCAGCAC
                                                                                                                               161
                                                                                      181
                              g
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                                                                        ÓΣ
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                                                                                                    QΫ́
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Fannon M;

Dougherty BA,

Dillon PJ,

Choi GH, Rosen CA;

Barash SC, Kunsch CA,

(HUMA-) HUMAN GENOME SCI INC 31-OCT-1996; 96US-0029960.

SEQ. TO, NO. 60

AAV52207 standard; DNA; 16535 BP. (first entry) Streptococcus pneumoniae. 23-OCT-1998 AAV52207; RESULT 43

Streptococcus pneumoniae; S. pneumoniae; genome; diagnosis; assay; computer readable medium; vaccine; pharmaceutical composition; ds. Streptococcus pneumoniae genome fragment SEQ ID NO:74. WO9818931-A2 AAV52207
ID AAV5
XX
AC AAV5
XX
DT 23-C
XX
KW Stre
KW Stre
KW COME
XX
KW COME
XX
KW COME
XX
YX
PN WO91
XX
PN WO91
PF 30-C

97WO-US19588

30-OCT-1997;

07-MAY-1998.

The present invention describes a computer readable medium which has the nucleotide sequences SEQ ID NO:1 to 391 (AAV52134 to AAV52524)

C tecorded on it, or a representative fragment or a sequence at least 95% identical to SEQ ID NO: 1 to 391. The nucleotide sequences depicted in SEQ ID NO: 1 to 391. The nucleotide sequences depicted in SEQ ID NO: 1 to 391 (AAV5234) are genomic fragments from SEQ ID NO:1 to 391 (AAV52134 to AAV52524) are genomic fragments from cisolated nucleic acid molecule encoding a homologue of any of the fragments of the S.pneumoniae genome (SEQ ID NO:1 to 391) where the curleic acid molecule is produced by a process comprising: (a) screening a genomic DNA library using as a probe a target sequence defined by any of the sequences in SEQ ID NO:1 to 391, identifying members of the contain sequences that hybridise to the target sequence and isolating the nucleotic acid molecules from an organism, amplifying nucleic acid molecules whose nucleotide sequence is homologous to amplification contain sequence is homologous to amplification or prime the amplification and isolating the amplified sequences. The computer che amplification and isolating the amplified sequences. The computer cadable medium can be used in a computer-based system for identifying fragments of the S. pneumoniae genome. Products from the present invention can be used in diagnosis kits and assays, and Computer-readable medium with recorded Streptococcus pneumoniae polynucleotide sequences - useful in diagnostic kits and assays, and pharmaceutical compositions and vaccines for Streptococcus pharmaceutical compositions and vaccines for S. pneumoniae. Claim 1; Page 608-617; 1409pp; English. WPI; 1998-272225/24. pneumoniae

Sequence 16535 BP; 5001 A; 3914 C; 3102 G; 4518 T; 0 other;

Gaps .; 0 Query Match 2.8%; Score 17; DB 19; Length 16535; Best Local Similarity 100.0%; Pred. No. 86; Matches 17; Conservative 0; Mismatches 0; Indels 0.

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451 ttcaaggatgccaagaa 467 474 ttcaaggatgccaagaa 490 g δ

Applikation of a species of the collection of th

US-08-998-416-136

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                                          Gaps
Length 703;
                       Indels
Query Match
5.0%; Score 68; DB 4; Le
Best Local Similarity 100.0%; Pred. No. 8.7e-18;
Matches 68; Conservative 0; Mismatches 0;
                                                  ò
                                                                       рp
```

1359 gtaatcat 1366

SEQ IDNO: 61

APPLICANT: Philipsen, Peter
APPLICANT: Philipsen, Peter
APPLICANT: Philipsen, Sabine
APPLICANT: Steiner, Sabine
APPLICANT: Mohr, Christine
APPLICANT: Mohr, Christine
APPLICANT: Mendland, Jurgen
APPLICANT: Mechtle, Philipp
APPLICANT: Rechtle, Philipp
APPLICANT: Rechtle, Philipp
APPLICANT: Repischung, Corinne
TITLE OF INVENTION: GENOMIC DNA SEQUENCES OF ASHBYA GOSSTPII
TITLE OF INVENTION: GENOMIC DNA SEQUENCES OF ASHBYA GOSSTPII
TITLE OF INVENTION: GENOMIC DNA SEQUENCES
CORRESPONDENCE ADRESS:
ADDRESSEE: 3054 Cornwallis Road
CITY: Research Triangle Park
STATE: No. 6239264th Carolina COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IMP PPC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFFWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/998,416
FILING DATE: 24-DEC-1997
CLASSIFICATION: 435
PRIOR APPLICATION NUMBER: CH 0016/97
FILING DATE: 31-DEC-1996
ATTORREY/ACBNT INFORMATION:
NAME: Meigs, J. Timothy
REGISTRATION NUMBER: PF/5-30306/A/CGC1976
TELEPHONE: 919-541-8689
INFORMATION FOR SEQ ID NO: 136:
SEQUENCE CHARACTERISTICS:
LENGTH: 703 base pairs
TYPE: nucleic acid
STRANDENDRES: single Sequence 136, Application US/08998416 Patent No. 6239264 US-08-998-416-136

TOPOLOGY: linear MOLECULE TYPE: DNA (genomic) ORIGINAL SOURCE: ORGANISM: PAGI051UP

218 GTAATCAT 225 δ

```
RESULT 30
            Sequence 4, Application US/08578649
Patent No. 5770366
GENERAL INFORMATION:
APPLICANT: Ulrich Bogdan
APPLICANT: Reinhard Buttner
APPLICANT: Brigitte Kaluza
TITLE OF INVENTION: MELANOMA-INHIBITING PROTEIN
NUMBER OF SEQUENCES: 24
CORRESPONDENCE ADDRESS:
ADDRESSEE: Felfe & Lynch
STREET: 805 Third Avenue
CITY: New York
STATE: New York
COUNTRY: USA
ZIP: 10022
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch 1.44 Mb storage diskette
COMPUTER: IBM PS/2
OPERATING SYSTEM: PC-DOS
SOFTWARE: Wordperfect
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/578,649
FILING DATE: 29-July-1994
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: DE P 43 24 247.2
FILING DATE: 20-July-1993
ATTORNEY/AGENT INFORMATION:
US-08-578-649-4
           Sequence 4, Application US/08578649
Patent No. 5770366
```

```
NAME: Andrew L. Tiajoloff
REGISTRATION NUMBER: 31,575
REFERENCE/DOCKET NUMBER: BOER 1035-PFF/ALT
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 838-3884
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 581 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: CDNA
FEATURE:
NAME/KEY: CDS
                   NAME/KEY: CDS
LOCATION: 110..499
              FEATURE:
                  NAME/KEY: sig_peptide
LOCATION: 110..178
             FEATURE:
NAME/KEY:
                                               mat_peptide
179..499
; LOCATION:
US-08-578-649-4
     Query Match 1.9%; Score 18; DB 1; Length 581; Best Local Similarity 100.0%; Pred. No. 35; Matches 18; Conservative 0; Mismatches 0; Indels
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SEQ 10 NO: 63 RESULT 17 AAV55038 ID AAV AAV55038 standard; cDNA; 5232 BP. AAV55038; XX DT 13-NOV-1998 (first entry) XX DE XX Human XIAP coding sequence. KW KW XX Inhibitor of apoptosis protein; apoptosis enhancer; NAIP polypeptide; proliferative disease; IAP; therapy; cancer; human; XIAP protein; ss. OS XX FH FT FT XX PN Key Location/Qualifiers 34..1527 /*tag= a /product= XTAP WO9835693-A2. XX PD 20-AUG-1998. ХX PF 13-FEB-1998; 98WO-IB00781. XX PR 13-FEB-1997; 97US-0800929. XX PA (UYOT-) UNIV OTTAWA. PI Baird S, Korneluk R, Liston P, Mackenzie AE, Pratt C; ·ÞΙ Tsang B; ХX WPI; 1998-467164/40. DR P-PSDB; AAW69294. XX Inducing apoptosis in proliferative mammalian cells with inhibitor of IAP or NAIP polypeptide - also methods for prognosis based on presence of IAP and NAIP, specifically applied to cancers involving PT PT p53 mutations XX PS Claim 13; Fig 1; 147pp; English. This sequence encodes the human XIAP protein, which is a inhibitor of apoptosis protein (IAP), and can be used in the method of the invention. The method is for enhancing apoptosis in cells from a mammal with proliferative disease by treatment with a compound that inhibits biological activity of an IAP or NAIP polypeptide. The inhibitory compounds are used to treat proliferative diseases, specially cancers of ovary, breast, pancreas, lymph nodes, skin, blood, lung, brain, kidney, liver nasopharnyx, thyroid,central nervous system, prostate, colon, rectum, cervix or endometrium, particularly to increase their sensitivity to chemotherapeutic agents. High levels of the IAP or NAIP proteins are detected in many cancers and are associated with poor prognosis, resistance to chemotherapeutic agents and mutations in p53 (it is suggested that wild-type p53 suppresses transcription of the IAP or NAIP genes). Transgenic animals are used for testing the effects of antisense oligonucleotides and for screening for the inhibitors. Sequence 5232 BP; 1579 A; 861 C; 1062 G; 1728 T; 2 other; Query Match 1.9%; Score 21; DB 19; Length 5232; Best Local Similarity 100.0%; Pred. No. 1.6; 21; Conservative 0; Mismatches 0; Indels Qу

RESULT 18

Dh

SEQ IDNO 64

```
RESULT
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               AAQ59633 standard; cDNA; 319 BP.
       ID
               AAQ59633;
      XΧ
              16-MAR-1994 (first entry)
      DT
              Human brain Expressed Sequence Tag EST01493.
      DE
      XX
             Gene transcription product; genetic markers; tagging; in vivo; transcription; mapping; locations; chromosomes; chromosomal; ss.
      KW
     os
             Homo sapiens.
     XX
PN
             WO9316178-A.
     ХX
    PD
XX
             19-AUG-1993.
            12-FEB-1993;
                                     93WO-US01294.
    XX
    PR
            12-FEB-1992;
                                    92US-0837195.
           (USSH ) US DEPT HEALTH & HUMAN SERVICE.
   PI
XX
DR
           Adams MD, Moreno RF, Venter CJ;
           WPI; 1993-272882/34.
  XX
PT
          Enriched oligonucleotides and corresp. sequences - used as markers for human genes transcribed in-vivo, facilitate tagging
  PT
PT
  ХX
PS
XX
CC
CC
CC
         Example 4; Page 207; 500pp; English.
       The Expressed Sequence Tag was isolated from a human brain cDNA library as part of a large set of ESTs which can be used as markers for human genes transcribed in vivo. They can be used to facilitate on chromosomes, for individual or forensic identification, for mapping type, and for prepn. of antisense sequences, probes and constructs. coding-region prediction program CRM. See also AAQ59041-Q61440.
CC
CC
XΧ
       Sequence 319 BP; 118 A; 42 C; 75 G; 82 T; 2 other;
 Query Match 2.7%; Score 27; DB 14; Length 319; Best Local Similarity 100.0%; Pred. No. 0.12; Matches 27; Conservative 0; Mismatches 0; Indels
                                                                                                          0; Gaps
         Qу
Db
RESULT
```

SEQ ID NO 65

```
RESULT 1
US-09-040-984-27
RESULT 1
US-09-040-094-27
; Sequence 27, Application US/09040984
; Patent No. 6210883
; GENERAL INFORMATION:
    APPLICANT: Reed, Steven G.
    APPLICANT: Wang, TongTong
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR DIAGNOSIS
; TITLE OF INVENTION: OF LUNG CANCER
; NUMBER OF SEQUENCES: 86
; CORRESPONDENCE ADDRESS:
    ADDRESSEE: SEED and BERRY LLP
    STREET: 6300 Columbia Center, 701 Fifth Avenue
; CITY: Seattle
; STATE: WA
    COUNTRY: USA
    ZIP: 98104
COMPUTER READABLE FORM:
    MEDIUM TYPE: Diskette
    COMPUTER: IBM Compatible
    OPERATING SYSTEM: DOS
    SOFTWARE: FastSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
    APPLICATION NUMBER: US/09/040,984
    FILING DATE: 18-MAR-1998
    CLASSIFICATION:
    AATORNEY/AGENT INFORMATION:
    NAME: MAKI, David J.
    REGISTRATION NUMBER: 31,392
            ATTORNET/AGENT INFORMATION
NAME: Maki, David J.
REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 210121.456
TELECOMMUNICATION INFORMATION:
TELEPHONE: 206-622-4900
TELEFAX: 206-282-6031
        TELEX:
INFORMATION FOR SEQ ID NO:
             SEQUENCE CHARACTERISTICS:
                LENGTH: 654 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
  ; TOPOLOGY: linear US-09-040-984-27
      Ouery Match 55.5%; Score 319; DB 4; Length 654; Best Local Similarity 100.0%; Pred. No. 2.7e-129; Matches 319; Conservative 0; Mismatches 0; Indels
                 Qy
           Qу
Db
           Qу
Db
            QУ
Db
            Qу
 Db
            301 ctgtcattacttagattcc 319
 Qy
             388 CTGTCATTACTTAGATTCC 406
 Db
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                                                                                                                          AYO88359 Drosophil
ACO14936 Drosophil
ACO16931 Drosophil
ACO06933 Drosophil
ACO15204 Homo sapi
ACO15301 Mus muscu
ACO15301 Mus muscu
ACO105301 Mus muscu
ACO105301 Mus muscu
ACO1951 Homo sapi
ACO99414 Mus muscu
ACO99414 Homo sapi
ACO99414 Homo sapi
ACO5854 Homo sapi
ACO5854 Homo sapi
ACO5854 Homo sapi
ACO5854 Homo sapi
ACO53346 Herpesvirus
X64346 Herpesvirus
X64346 Herpesvirus
X64346 Herpesvirus
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AF277992 Mus muscu
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AF192756 Kaposi's
AC09572 Rattus no
X60297 A.californi
U72849 Homo sapien
U53786 Homo sapien
                                  AF229637 Mus muscu
BC011195 Mus muscu
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Eukaryora: Metazoa; Chordata; Craniata: Vertebrata; Euteleostomi;
Mammala: Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 2168)
Strausberg.R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AC040980 Homo sapi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Direct Submission
Submitted (30-UUL-2001) National Institutes of Health, Mammalian
Gene Collection (MGC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BC011675
Homo sapiens, Similar to JM1 protein, clone MGC:15381
IMAGE: 299954, mRNA, complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NIH-MCC Project URL: http://mgc.nci.nih.gov
Contact: MCC help desk
Email: caapbs-r?mail.nih.gov
Tissue Procurement: ATCC
                                                                        AC09055

AC097025

AC097025

AC097025

AY058359

AY058359

AC0104316

AC0104316

AC010531

AC0105301

AC105305

LMFLCHR34_16

AC091051

AC091051

AC090656

AC090656

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AC090656

AC090656
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HSV3PRGEN
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AC002304
AC002328
AC01304
AC023310
LFL289860
AC125756
AC15756
                                                              AF235097
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BC011575,1 GI:15079716
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110000
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181437
186002
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215046
206976
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211973
173294
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203984
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106320
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178022
179337
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BC011575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
 RESULT
                                                                                                                                                                                                                                                                                                        00000
                                                                                                                                                                                                                                                                                                                                                                             00000000
                                                                                                     (without alignments)
1570.670 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                       1 tgaagagccgcgcggtggag......tcatgcggaaggttcgagac 502
                                                                                       April 29, 2002, 19:34:49 ; Search time 8020.54 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Description
                                                                                                                                                                                                                                                                 3595312
         GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd
                                                                                                                                                                                                                                      1797656 seqs, 10463268293 residues
                                                                                                                                                                                                                                                             hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUMMARIES
                                                                                                                                                                                                                                                                                                                             Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                              nucleic search, using sw model
                                                                                                                                                                                               IDENTITY_NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                em_htg_other:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          en_pat:*
em_ph:*
em_ppl:*
em_ppl:*
em_ro:*
em_sts:*
em_vi:*
em_vi:*
em_tig_hom:*
em_htg_low:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             em_htgo_inv:*
                                                                                                                                                                                                                                                                                         DB seq length: 0
DB seq length: 2000000000
                                                                                                                                            US-09-248-178-60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query
Match Length DB
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9b_ihtg:.*
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Perfect score:
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GKPRASRLVVPELSREPREFREPROASPILLEVPTGVPOPPGRVASLLEHHALGUGOT
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GAWGAGATTGAPRGSFTHSEKFFHLEPGAGAATGAPRASRREDGILG
GAWGAGATTGAPRASRAFTHSEVENTHLGYSFVQABSECRHEKLSTRREGALIPTRSPOTYMANGOGEL
ESLERGLEGYVWRAARAGARTHGAGWEKHRYPLLAEYRHEKLOPCRF**ESRRL
LPGGTANLAKLQUVVENSAGRYTHLAGGWEKHRYPLLAEYRHEKLOPCRF**ESRRL
AEIQELHGSVRAAABEARREESVYGLMSGELTLIPRDVSRLYTGRILLEIV**HTRNOK
EEITKILSDTKELGARINGSGKLDBTFAVTDELVFRDAKRODAVRRATK***i AALHEN
CSGLIOTIEDTGTIMREVRDLEEQIETELGKKTI.SNLEKIREDYRALROEF**AALHEN
                                                                                                            Contact:
    nisc_mgefingari.nih.gov
Shevchenko.Y., Wetherby.K.D., Beckstrom-Sternberg,S.M.,
Benjamin.B., Blakesley.R.W., Bouffard.G.G., Brinkley.C., Brooks.S.,
Dietrich.N.L., Gupta.J., Ho.S.-L., Karlins,E., Legaspi.R.,
Lim.M., Maduro.O.L., Masiello.C., Mastrian.S.D., McCloskey.J.C.,
McDowell.J., Pearson,R., Snyder,B., Stantripop.S., Thomas.P.J.,
Iiongson.E.E., Touchman.J.W., Isurgeon.C., Vogt.J.L., Walker,M.A.,
Zhang,L.-H. and Green.E.D.
                                                                                                                                                                                                                                                                                        Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
Scries: IRAL plate: 26 Row: n Column: 14
This clone was selected for full length sequencing because it passed the following selection criteria: Similarity but not
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    cDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: National institutes of Health Intramural
Sequencing Center (NISC),
Galtbersburg, Maryland;
Web site:
Laboratory
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/lab_host="DH10B-R"
/lote="Vector: pOTB7"
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98.7%; Pred. No. 2.1e-121;
iive 0; Mismatches 5;
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/db_xref="taxon:9606"
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PRI 15-MAY-1998
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Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi:
Eukaryota: Butheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 2228)
Strom,T.M., Nyakatura,G., Hellebrand,H., Drescher,B., Rosenthal,A. and Mendl,A.
Transcription map in Xpll.23
Unpublished
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Submitted (30-APR-1998) Abteilung Medizinische Genetik, Goethestr.
29. Muenchen 80336, Germany
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HSA005890 2228 bp mRNA linear PRI 15-MAY-1 Homo sapiens mRNA for JM1 protein, complete CDS (clone LLNLc110M011107 (RZPD Berlin)and LLNLc110K2140Q7 (RZPD Berlin)).
                                                                                                                                                                                                                                1404 ANGNESCCCGCAGGAAGGAGGAGGTCTATAAGCAGCTGATGTCAGAGCTGGAGACTCTGC 1463
                                                                                                                                                                                                                                                                                                  agaactgcagccagctcatccagaccatcgaggacaccaggcaccatcatgcgggaggttc 597
                                                                                              /clone="LLNLc110M011107 (RZPD Berlin)"
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877. 1970
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AJ005890.1 GI:3114815
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87. .1970
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LPDGTANLAKLQLVVENSAORVIHLAGOWEKHPVPLLAEYRHILRKLODGRELESSRRL
BETÖELHÖSVSRAABEBARKEEVYKOLMSELETLERDVSKLAYTÖRILETVGNIRKOK
ERITKILSDYKELQKEINSLSKLIDRTFAVTDEI VFKDAKNDAVRKAYKYLAAIHEN
CSOLIOTIEDTGTI MREVRDILEDOI ETRIGKKII.SNLEKI REDYPAALROGNAGILIGRA
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Strausberg.R. Direct Submission
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No. 2.1e-121;
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complete cds.
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BC000972.2 GI:12803024
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Best Local Similarity 98.7
Matches 597: Conservative
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TITLE
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EEITKILSDTRELGKEINSEGSKLDBTFAAVTDELVRKDAKRDANRARYRYLAALHEN
CSOLIQTIEDTGTIMREVRDLEEOIETELGKRYLLSNLEKIREDYRALROGNAGLGRPV
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through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
Series: IRAK Plate: 3 Row: n Column: 6
Submitted (16-NOV-2000) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
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                                                                                                                                                                                                                                                                version replaced gi:12654302
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Web site: http://www.hgsc.bcm.tmc.edu/cdna/
Contact: villalon@bcm.tmc.edu.
Villalon. D.K., Luna, R.A., Hale, S.M., Hulyk, S., Lu, X
A.M., Holloway, M., Telford, B, Hodgson, A., Bouck, J., Muzny,D.M., Gibbs,R.A.
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/clone_lib="NHH_MGC_10"
/lab_host="bulob"
/note="vector: pCMV-SPORT6"
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Pred. No. 2.1e-121;
0; Mismatches 5;
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/db_xref="Locus1D:28952"
/db_xref="taxon:9606"
/clone="MGC:5137 IMAGE:3449051"
                                                                                                                                                                                                    NIH-MGC Project URL: http://mgc.nci.nih.
On Feb 14, 2001 his sequence version re
Contact: MGC help desk
Email: cgapbs-r@mail.nih.gov
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Best Local Similarity 98.7
Matches 597; Conservative
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Mus musculus, Similar to JN1 protein, clone MGC:18697
IMMGE:4188459, mRNA, complete cds.
BC011195.1 GI:15029978
OOPFHSSRLVLPELNSSGELNEFOASPLLLPAPTQVPOLOGRAASLLEHHASOLCQHV
RRCCPGDEDRVRWASRYPSQEDSRAPOQRLHKOLIEHLRQSWGPLGAPTQVRDLGEMI
OTWGARAMTGVPKGSRFTHSEKFTFHLEPQVQAAQVADVADTSORLEGDTRAAOEOEL
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LPDGAANLAKLOLVYSSAORLIHLASQWEKHRYPLLAEYRHLRRLQPCRELESSRRL
AEIQELHHSVRAAAEEARRKEEVYKQLVSELTLPKDVSRLAYTQRILEIVGNIRKQK
ESTIKILSDIKELOKEINSLSGKLDRFFAYTDELVFRDAKKDANKRYKTLAALHEN
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INDDVGSGLSHLLPPAAMSARFRLAMSLAQACMDLGYPLELGYONFLYPSEPDLRDLLL
FLAERLPSDASEDADQPAGDSAIFLRAIGSQIRRDLALPWVPPLLRIPKVQRLQGSAL
                                                                                                                                                                                                                                                                                                                                                                                                                               2179 bp mRNA linear ROD 22-JUH-2000 protein (DXlmx40e) mRNA, complete cds.
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1 (bases 1 to 2179)

A transcript map of a 2-Mb BAC config in the proximal portion of the mouse X chromosome and regional mapping of the scurfy mutation 20313888
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Derry J.M.J.
Direct Submission
Submitted (31-JAN-2000) Molecular Biology, immunex Corporation.
University St. Seattle, WA 98101, USA
Location/Qualifiers
1.0179
//Organism="Mus musculus"
//dr.xref="laxon:10090"
//chromosome="x"
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          expressed
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/protein_id="AAF66951.1"
/db_xref="GI:7673514"
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AUTHORS
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Project Information
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Best Local Similarity 53.79
Matches 87; Conservative
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Homo sapiens chromosome 5 clone RP11-104C13, WORKING DRAFT
SEQUENCE, 2 unordered pieces.
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1 (Dasea: 1 to 173294)

DOE Joint Genome Institute.
Sequencing of Human Chromosome 5
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 This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
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53.7%; Pred. No. 1.8;
                                                                                                               contig of 11037 bp in length gap of unknown length contig of 6898 bp in length gap of unknown length contig of 5147 bp in length gap of unknown length
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27693 c 27731 g 46982 t 1242 others
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contig of 12772 bp in length
gap of unknown length
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153000: contiq of 26418 bp in length.
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                                             contig of 1072 bp in length gap of unknown length contig of 1098 bp in length gap of unknown length
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HTG: HTGS_PHASE1: HTGS_DRAFT: HTGS_ACTIVEFIN
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    153000
    /organism="Homo sapiens"
/db_xref="taxon:9606"
    /chromosome="5"

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|08272: contiq of
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2 (bases 1
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TITLE
JOURNAL
REFERENCE
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ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 15
AC109447/C
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Summary Statistics
Consensus quality: 173099 bases at least 040
Consensus quality: 173104 bases at least 030
Consensus quality: 173170 bases at least 020
Estimated insert size: 17540; agarose-fp estimation
Cuality coverage: 20.73 in 020 bases; agarose-fp estimation
Cuality coverage: 21.06 in 020 bases; sum-of-contigs estimation
Cuality coverage: 21.06 in 020 bases; sum-of-contigs estimation

* NOTE: This is a 'working draft' sequence. It currently
consists of 2 contigs. The true order of the pieces

* is not known and their order in this sequence record is
arbitrary. Gaps between the contigs are represented as

* runs of N, but the exact sizes of the gaps are unknown.

This record will be updated with the finished sequence

* as soon as it is available and the accession number will
DOE Joint Genome Institute.

Direct Shbmission
Submitted (04-FEB-2002) Production Sequencing Facility, DOE Joint
Genome Institute, 2800 Mitchell Drive, Walnut Creek, CA 94598, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       91 tcacagaatctatggattgcagcatttcacttggctacttcatacccatgccttaaaga 150 i 130356 IAGGAGAAGGIAATATTTTAAGCAATTGCCTTGGGTGATTAGGACAATTGCTTAAGAAT 130297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DS 130415 TAATITITACTITITCATITACTITITGCTTAAAAATATTACCTIGGGTGATAAGGACAAT 130357
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7.3%; Score 42; DB 2; Length 173294; 53.7%; Pred. No. 1.8; Live 0; Mismatches 75; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         46840 46939: contig of 46839 bp in length
46840 46939: gap of unknown length
46940 173294: contig of 126355 bp in length.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /clone_lib="RPCI human BAC library 11"
53077 a 30909 c 31143 g 58065 t 100 others
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                             Center Project Name: 446362
Center clone name: RPCI-11_104C13
                                                                                                      .....-Genome Center
Center: Joint Genome Institute
Center Code: JGI
Meb Site: http://www.jgi.doe.gov
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2863. .2931
/gene="Tem5"
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                                                                                                                                                                                                                                                                                                                                                78: Conservative
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                                                                        misc_feature
    misc_feature
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Matches 7
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KEYWORDS
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DEFINITION
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TITLE
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AUTHORS
TITLE
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REFERENCE
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AHALSSLOPGYPDELPAIK UNDEGLEELTTGERGWARNHSLOLSERTLCAT PSALH
AHALSSLOPSOLRCEGALELHTHYLIPSLROVYFOGDRLPFOCSASYLGHDIR IHWYH
NGAMBESDEQAGILVAENLIHOLTFITSELLEHIGWARGEWEGSVSTYVORDTSKKY
EIVYLETSASYCPPERVYINRGDFRWFTLAGITAYOSCLOYPFTSVPLSGGARGTRA
SRCCBRAGRWEPGDYSHCLYTNDITRVLYTFVLMPINNSNALTLAHOLRVYTAEASF
SDMADVYYVAOAN OKFLGYVDOIRELYWONDASNIALUSDEHLLMLAGREDKACSGI
VGALERIGGAALSPHAQHISVNSRNVALEAYLIKPHSYVGLICTAFORREVGYSGAOP
SSYGODAPVEPEPLAAQOLERCTTGRRNISLSSFHIKNSVALASIOLPPSLFSTLPA
ALAPPVPDCTLOLLVFRNGFLFRSHGNNTSRPGAAGPGKRFGVATPVIFAGTSGCGV
GNLTEPVAVSLRHAMEGADPHAAWWODGPGGWSSEGCRLFYSOPNVSSLYCOHLGNV
AVLMELNAFPREAGGSGAGLHPVYYPCTALLLCLFSTIITTILNISSIHVSRGWHM
LLNUCFHMAMTSAYPGGYTLINYOWYCOAVGITLHYSSLLWMGVARRVIHRELS
WRAPPIEEGERAAPGGRPMLRFYLLAGIPLICGITAANVIHNYRDHSPYCWLYWRP
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GVLLNDSGSLLATVSAGVGT PAPPEDGDGVY SPGVQLGALMI THFLY LAMMACGALAV
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RSASRDHLKGSGSALERESKRRSYPLNTTSLNGAPKGGKYEDASVTGAEA1AGGSMKT
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LEKLDLRSNVISTVQPGAFLGLGELKRLDLSNNRIGCLTSETFQGLPRLLRLNISGNI
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                                                                   Mus musculus

Vertebrata: Euteleostomi:

Marmalla: Eutheria: Rodentia: Sciurognathi: Muridae: Murinae: Mus.

1 (bases 1 to 5520)

1 (bases 1 to 5520)

Carson Walter.E. B., Watkins, D.N., Nanda, A., Vogelstein, B.,

Kinzler, K. W. and St. Croix, B.

Cell surface tumor endothelial markers are conserved in mice and
                                                                                                                                                                                                                                                                                                                   Carson-Walter, E.B., Vogelstein, B., Kinzler, K.W. and St. Croix, B. Direct Submission
Direct Submission
Submitted (10 MAY-2001) Oncology, Johns Hopkins University, 1650
Orleans Street, Baltimore, MD 21231, USA
Location/Qualifiers
1. 15520
/ Organism="Mus musculus"
/ / db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             seven-pass transmembrane protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'product="tumor endothelial marker 5 precursor"
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/gene="Tem5"
/product="tumor endothelial marker 5"
2413. .2478
/gene="Tem5"
                                                                                                                                                                                                                                                      Cancer Res. 51 (18), 6649-6655 (2001)
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/db_xref="G1:15987499"
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2599. .2664
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /codon_start=1
  AF378759.1 GI:15987498
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127. .204
/gene="Tem5"
127. ....
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/gene≕"Tem5"
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                                                                   ORGANISM
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MEDLINE
FUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                             AUTHORS
TITLE
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                       REFERENCE
                                                                                                                                                               AUTHORS
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AC093307 153000 bp DNA linear HTG 16-AUG-2001
Homo sapiens chromosome 5 clone RP11-810C16, WORKING DRAFT
SEQUENCE, 13 unordered pieces.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Consensus quality: 142440 bases at least 040
Consensus quality: 146623 bases at least 030
Consensus quality: 149732 bases at least 030
Consensus quality: 149732 bases at least 020
Estimated insert size: 181920; agarose-fp estimation
Consensus quality: 181920; agarose-fp estimation
Consensus coverage: 15.1800; sum-of-contigs estimation
Consensus consists of 3 contigs. The size a working draft's sequence. It currently
Consists of 13 contigs. The true order of the pieces
is not known and their order in this sequence record is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Craniata; Vertebrata; Euteleostomi;
Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                     491 ataccatggagccatagaaaggctatggattgtttaagaactattttaaagtgttccaga 550
                                                                                                                                                                                                                                                                                                                                                                           431 agcaaaggiteltgagaaleageeatttggtacaaaaaagatttttaaagettttatgit 490
                                                                                                                                                                                                                                                                                                                               Gaps
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                                                                           /note="Region: predicted transmembrane domain"
3244. .3312
/qene="Tem5"
                                                                                                                                                  /note="Region: predicted transmembrane domain"
1631 c 1600 g 1164 t
/note="Region: predicted transmembrane domain"
7151, 3207
/qene="Tem5"
                                                                                                                                                                                                                                                                          7.3%; Score 42; DB 10; Length 5520; 56.5%; Pred. No. 2;
                                                                                                                                                                                                                                                                                                                            60; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HTG; HTGS_PHASE1; HTGS_DRAFT; HTGS_ACTIVEFIN
                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Project Information
Center Project Name: 1605608
Center clone name: RPCI-11_810C16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequencing of Human Chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
Eukaryota: Metazoa; Chordata;
Mammalia: Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 (bases 1 to 153000)
DOE Joint Genome Institute.
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AC093307.1 GI:15193441
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5520 bp mRNA linear ROD 07-OCT-2001 mus musculus tumor endothelial marker 5 precursor (Tem5) mRNA, AF378759
Estimated insert size: 104710; agarose-fp estimation catimated insert size: 108846; sum-of-contigs estimation (Quality coverage: 3.89 in 020 bases: agarose-fp estimation (Quality coverage: 3.44 in 020 bases: sum-of-contigs estimation.)

• NOTE: This is a 'working draft' sequence. It currently consists of 14 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 425 cagtatggcaaaggttcttgagaatcagccatttggtacaaaaagattttaaagcttt 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   365 ccagaaatcatgacctgaaaqaqatgaaatttcaagctgtgagccaggcaggagctc 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7.3%; Score 42.2; DB 2; Length 110146;
58.7%; Pred. No. 1.6;
Live 0; Mismatches 63; Indels 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           regard of unknown length
contig of 5500 bp in length
contig of 8408 bp in length
contig of 8408 bp in length
contig of 10720 bp in length
contig of unknown length
contig of unknown length
contig of 20497 bp in length
gen
                                                                                                                                                                                                                                                                                                                                       contig of 1179 bp in length gap of unknown length contig of 1281 bp in length contig of 1533 bp in length gap of unknown length gap of unknown length gap of unknown length contig of 1671 bp in length contig of 1667 bp in length gap of unknown length contig of 1667 bp in length gap of unknown length gap of unknown length gap of unknown length
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/clone_11b="CalTech human BAC library D"
19858 c 19986 g 35164 t 1303 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           contig of 3660 bp in length gap of unknown length contig of 1808 bp in length gap of unknown length contig of 5105 bp in length gap of unknown length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ortig of 18686 bp in length
gap of unknown length
contig of 26241 bp in length.
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/organism="Homo sapiens"
/db_xref="taxon:9606"
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Best Local Similarity 58.7°
Matches 91; Conservative
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ORIGIN
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AF378759
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
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Homo sapiens chromosome 5 clone CTD-2079J19, WORKING DEAFT
SEQUENCE, 14 unordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unpublished

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DoE Joint Genome Institute.

DoE Joint Genome Institute.

DoE Joint Genome Institute,

Genome Institute, 2800 Mitchell Drive, Walnut Creek, Ch. 94598, USA

On Apr 20, 2001 Lis sequence version replaced gi:10305:53.

Center: Joint Genome Institute
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Catarrhini; Hominidae; Horo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Db 15206 AATAAAGGCAGCTAGGTTTCTAATAICAATGGATTAGAATAAATCTAAAATGTGAACCAG 15265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15266 ACATACATGGATGATTTTTAACAAAGGTGTCATCAGAGTAACTCAATGGAGAAACA 15325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15326 AAA:TTTCCCAACAATTGTGCCAGAACAGCATATCATTTGGGAGGAACAAGTGA 15385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    407 iganogaggcaggagetecagtatggcaaaggitettgagaaicagecaittggtacaaa 465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  467 aaamatttttaaagettttatgttataceatggageeatagaaaggetatggattgirta 525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            347 aaauaggecagetaatagecagaaateatgaeeetgaaagagagatgaaatteaag~tg 405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       n; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7.4%; Score 42.4; DB 2; Length 151186.
49.1%; Pred. No. 1.4;
tive 0; Mismatches 116; Indels 0:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   527 agametatttaaagtgtteeagaceeaaaaggaaaaaaaaaaa 574
                                                                                                                                                                                                                                                                                                                                                                                         1500 others
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Consensus quality: 92776 bases at least 040
Consensus quality: 98775 bases at least 030
Consensus quality: 101176 bases at least 020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AC022421.6 G1:13699635
HTG; HTGS_PHASE1; HTGS_DRAFT; HTGS_ACTIVEFIN.
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27475 c 25972 g 47578 t
                                                                                                                                                                                     /note-"assembly_fragment"
13363. 150691
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150792. 151186
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Center clone name: CITB-H1_2079J19
        /note="assembly_fragment"
89671. .101200
                                      89671, 101200
/note="assembly_fragment"
101301, 117957
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118058. .133402
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DOB Joint Genome Institute.
Sequencing of Human Chromosome 5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                    clone_end:T7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity 49.1
Matches 112; Conservative
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AC022421/c
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ORGANISM
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VERSION
KEYWORDS
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AUTHORS
TITLE
JOURNAL
REFEPENCE
AUTHORS
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/note="assembly_fragment"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          53485 53584: gap of
53385 62205: conti
62206 62305: gap of
62306 68614: conti
68615 68714: gap of
68715 79766: conti
79767 79866: gap of
7967 69867:
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Anderson, S., Baldwin, J., Barna, N., Bastien, V., Beda, F.,
Boyuslavity, L., Boukhagalter, B., Brown, A., Burkett, G.,
Campoplano, A., Castle, A., Choepel, Y., Colangelo, M., Collins, S.,
Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S.,
Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S.,
Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S.,
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Galagan, J., Gardyna, S., Ginde, S., Goyette, M., Graham, L.,
Grand-Pherre, N., Grant, G., Hagos, B., Heaford, A., Horton, L.,
Howland, J.C., Iliev, I., Johnson, R., Jones, C., Kann, L., Karatas, A.,
Klein, J., Laroque, K., Lamazares, R., Landers, T., Lehoczky, J.,
Kaline, R., Lieu, C., Liu, G., Locke, K., Macdonaid, P., Marquis, N.,
McCarthy, M., McEvan, P., McGurk, A., McKernan, K., McPheeters, R.,
Heldrim, J., Manneus, L., Mihova, T., Miranda, C., Mlenga, V., Morrow, J.,
Murphy T., Naylor, J., Norman, C.H., O'Connor, T., O'Connor, T.,
Pisani, C., Pollara, V., Raymond, C., Riley, R., Rothman, D.,
Roy, A., Santos, R., Schauer, S., Severy, P., Spencer, B.,
Stange-Thomann, N., Stojanovic, N., Subramanian, A., Talamas, J.,
Tesfaye, S., Theodore, J., Tirrell, A., Travers, M., Trigillo, J.,
Voung, G., Zainoun, J., Zimmer, A. and Zody, M.
Direct Submission

Lessarch, 320 Charles Street, Cambridge, MA 02141, USA

No Sep S. 2000 this sequence version replaced gi:8247941.
All repeats were identified using RepeatMasker:
Smit, A.F.A. 6 Green, P. (1996-1997)
http://ftp.genome.washington.edu/RW/RepeatMasker:html
                                                                                                                                                                                                   HTG 05-SEP-2000
                                                                                                                                                                                              AC068750 151186 bp DNA linear HTG 05-SEP-200
Homo sapiens chromosome 11 clone RP11-63B15 map 11, WORKING DRAFT
SEQUENCE, 17 unordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Homihidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Research
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Insert size: 149586; sum-of-contigs
Quality coverage: 4.8 in 020 bases; agarose-fp
Quality cov.
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                       Center code: WIBR
Web site: http://www.seq.wi.mit.edu
Contect: sequence_submissions?genome.wi.mit.edu
Center clone name: 63_B_15
....Summary Statistics
Sequencing vector: M13; M77815; 95% of reads
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Assembly program: Phrap; version 0.959731
Consensus quality: 1443431 bases at least Q40
Consensus quality: 146986 bases at least Q30
Consensus quality: 148556 bases at least Q30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 (bases 1 to 15186)
Birren,B., Linton,L., Nusbaum,C. and Lander,E.
Homo sapiens chromosome 11, clone RP11-63815
Unpublished
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                                                                                                                                                                                                                                                                                                                                   HTG: HTGS_PHASE1; HTGS_DRAFT.
                                                                                                                                                                                                                                                                                 AC068750
AC068750.3 GI:9966996
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                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                       human.
                                                                                                                                                                                                                        DEFINITION
                                                                                                                                        RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
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AUTHORS
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REFORENCE
//JIHORS
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KEYWORDS
SOURCE
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consists of 17 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N. but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                        38129 382281. gap of 100 bp 38229 39633; contig of 1455 bp in length 3964 42531; contig of 2748 bp in length 4253 42631; contig of 2748 bp in length 4253 42631; contig of 2734 bp in length 45366 45465; gap of 100 bp 45466 48220; contig of 2734 bp in length 4821 48320; gap of 100 bp 48321 53484; contig of 5164 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    118058 118057: gap of 100 bp 118058 1133402: contig of 15345 bp in length 133403 135502: gap of 100 bp 133503 150691: contig of 17189 bp in length 150792 150791: gap of 100 bp 150792 151186: contig of 395 bp in length.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               68714: gap of 100 bp 79766: contig of 11052 bp in length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            101201 101300: gap of 100 bp
101301 117957: contig of 16657 bp in length
                                                                                                                                                                                            16641: contig of 16641 bp in length
                                                                                                                                                                                                           16642 16741: gap of 100 bp
16742 36912: contig of 20171 bp in length
36913 37012: gap of 100 bp .
37013 38128: contig of 1116 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    p of 100 bp
contig of 8621 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  62305: gap of 100 bp
68614: contig of 6309 bp in length
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16742. 36912
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37013. 38128
/note="assembly_fragment"
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1. 16641
/note="assembly_fragment
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53585. .62205
/note="assembly_fragment"
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68715. .79765
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/organism="Homo sapiens"
/db_xref="taxon:9606"
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Direct Submission

Submitted (66-NOV-2001) Wellcome Trust Sanger Institute, Hinxton, Cambridgeshire, CBIO 15A, UK. E-mail enquiries:

Cambridgeshire, CBIO 15A, UK. E-mail enquiries:

humquery@sanger.ac.uk Clone requests: clonerequest@sanger.ac.uk

on Nov 12, 2001 this sequence version replaced gi:16555537.

During sequence assembly data is compared from overlapping clones.

Where differences are found these are annotated as variations

together with a note of the overlapping clone name. Note that the

variation annotation may not be found in the sequence submission

corresponding to the overlapping clone, as we submit sequences with

only a small overlap as described above.

This sequence was finished as follows unless otherwise noted: all

regions were either double-stranded or sequenced with an alternate

chemistry or covered by high quality data (i.e., phred quality >=

chemistry or covered by high quality data (i.e., phred quality >=

chemistry or covered by high quality data (i.e., phred guality >=

chemistry or covered by high quality data (i.e., phred guality >=

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chemistry or covered by high quality data (i.e., phred guality >=

chemistry or covered by high quality data (i.e., phred guality >=

chemistry or covered by high quality data (i.e., phred guality >=

chemistry or confirmed by restriction digest. The following

assembly was confirmed by restriction digest. The following

abbreviations are used to associate primary accession numbers given

in the feature table with their source databases: Em.; EMBL: Sw.;

SWISSPROT: TT: TREMBL: Wp.; WorkMPEP: Information on the WCFMFP

database can be found at

http://www.sanger.ac.uk/MCP/Chr!

RPII-63BIS is from the library RPOI-11.1 constructed by the group

of Pieter de Jong. For further details see

http://www.chori.org/bacpec/home.htm

vorther in sequence is not the entire insert of clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IMPORTANT: This sequence is not the entire insert of clone RP11-63B15 It may be shorter because we sequence overlapping sections only once, except for a short overlap. The true left end of clone RP11-63B15 is at 1 in this sequence. The true left end of clone RP11-30701 is at 141105 in this sequence. Location/Qualifiers
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                                                                                                                                                       Homo sapiens
Eukaryota: Metazoa: Chordata: Craniata: Vertebrata: Euteleostomi;
Mammalia: Eutheria: Primates: Catarrhini; Hominidae: Homo.
1 (bases 1 to 143104)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  467 aaagattttaaagcttttatgttataccatggagccatagaaaggctatggatlgttta 526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                347 aaagaggccagctaatagccagaaatcatgaccctgaaagagagatgaaatttcaagctg 405
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Human DNA sequence from clone RP11-63B15 on chromosome 1,
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7.4%: Score 42.4; DB 9;
Best Local Similarity 49.1%; Pred. No. 1.4;
Matches 112; Conservative 0; Mismatches 116;
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25954 c 24891 g 45411 t
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/db_xref="taxon:9606"
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                                                          AL505503.10 GI:16904465
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Direct Submission
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       DEFINITION
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AUTHORS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        :22162 TITGGCAGAGGGGAATGAGATCAAAACACATATTTGGAATITTAIGTTGTTGCTGAGC 122)03
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Pred. No. 0.99;
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87446. 96394
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27067. 30515
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34598. .38352
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/note="assembly_fragment"
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30616. .34597
                                                                                                                  /note="assembly_fragment"
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B'st Local Similarity 51.3%;
Mrtches 100; Conservative
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LOC'S
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arbitrary. Gaps between the contigs are represented as runs of N. but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                     **MOTE: This is a 'working draft' sequence. It currently consists of 24 contigs. The true order of the pieces is not known and their order in this sequence record is
Insert size: 157000; agarose-fp
Insert size: 146524; sum-of-contigs
Quality coverage: 3.4 in 020 bases; agarose-fp
Quality coverage: 3.7 in 020 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                             prese. 1794: C. 200. 100 bp 10 100 bp 100 bp
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69404 78194: contig of 8791 bp in length
78195 78294: gap of 100 bp
78295 87345: contig of 9051 bp in length
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59882 69303: contig of 9422 bp in length
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JS1 bp in length
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18113: contig of 4002 bp in length
13: gap of 100 bp
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15: contig of 3449 bp in length
gap of 100 bp
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23848: contig of 2526 bp in length
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/note="assembly_fragment"
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/organism="Homo sapiens"
/db_xref="taxon:9606"
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Since 1 (Dases 1 to 148824)

Birren, B., Linton, L., Nusbaum, C., Lander, E., Abraham, H., Allen, N., Anderson, S., Baldwin, J., Barna, N., Bastien, V., Beda, F., Bodkhqalter, B., Brown, A., Burkett, G., Campopiano, A., Castle, A., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Domino, M., Doyle, M., Ferrelra, P., Fitchugh, W., Gage, D., Galagan, J., Gardyna, S., Ginde, S., Goyette, M., Graham, L., Kartas, J., Howland, J.C., Illev, I., Johnson, R., Jones, C., Kann, L., Kartas, A., Riein, J., LaRocque, K., Landers, T., Lehoczky, J., Levine, R., Lieu, C., Liu, G., Locke, K., Macdonald, P., Morrow, J., McCarthy, M., McEwan, P., McGurk, A., McKernan, K., McPheeters, R., Lieu, C., Liu, G., Locke, K., Macdonald, P., Morrow, J., Murphy, T., Naylor, J., Norman, C. H., O'Connor, T., O'Donnell, P., O'Neil, D., Ollyar, T., M., Cand, C., Milanda, C., Peterson, K., Pierre, H., Pisani, C., Pollara, V., Raymond, C., Riley, R., Pierre, H., Peterson, K., Schauer, S., Severy, P., Spencer, B., Stanger-Thomann, N., Stojanovic, N., Suramanian, A., Talanas, J., Vassiliey, H., Viel, R., Vo, A., Wilson, B., Ku, X., Kyman, D., Ye, W. J., Vonn, G., Suhmer, A. and Zody, M., Travers, M., Trigillo, J., Wassiliey, H., Viel, R., and Zody, M., Trigillo, J., Suhmer, A. and Zody, M.
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HTG: HTGS_PHASE1: HTGS_DRAFT.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens

Eukaryota, Metazoa; Chordata: Craniata; Vertebrata; Euraleostomi;

Mammalia: Eutheria; Primates: Catarrhini: Hominidae; Hamo.

1 (bases 1 to 148824)

Birren,B. Linton,L., Nusbaum,C. and Lander,E.

Homo sapiens, clone RP11-255N7
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                   gagaatcagccatttggtacaaaaaagatttttaaagcttttatgttataccatggagcc 503
                                                                                                                                                                               118 GAGAATCAGCCATTTGGTACAAAAAGATTTTTAAAGCTTTTATGTTATACCATGGAGCC 59
                                                                                                                                                                                                                                                                      Center clone name: 259_N_7

Center clone name: 559_N_7

Sequencing vector: M13; M77815; 100% of reads

Chemistry: Dye-terminator B19 Dye: 100% of reads

Assembly program: Phrap: version 0.560731

Consensus quality: 139802 bases at least 0.40

Consensus quality: 143173 bases at least 0.20
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      Chordata; Craniata; Vertebrata: Euteleostomi;
Primates; Catarrhini: Hominidae; Homo.
                                                                                                                                                                                                                                                                                                    Lodes,M.J., Wang,I., Mohamath,R. and Indirias,C.Y. Compositions and methods for the therapy and diagnosis of lung
                                                                                                                                                                                                                                                                1 (sites)
Lodes,M.J., Wang,T., Mohamath,R. and Indirias,C.Y.
Compositions and methods for the therapy and diagnosis of lung
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                      6; Length 473;
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Pred. No. 1.8e-84;
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CORIXA CORPORATION (US)
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Sequence 402 from Patent WO0177168.
AX321385
                                                              Patent: WO 0177158-A 245 18-OCT-2001 CORIXA CORPORATION (US)
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/db_xref="taxon:9606"
                                                                                                 /organism="Homo sapiens"
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Best Local Similarity 99.5%;
Matches 392; Conservative
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Mammalia; Eutheria;
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Young P.E., Augustus,M., Carter,K.C., Ebner,R., Endress,G.,
Horrigan.S., Soppet,D.R. and Weaver,Z.
Cancer gene determination and therapeutic screening using signature
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                            Indels
Score 370; DB 6; L
Pred. No. 1.8e-84;
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Avaion Pharmaceuticals (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                  Sequence 5756 from Patent W00194629.
                                                                                                                                                                                                                                                                                                96
                            0, Mismatches
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/db_xref="taxon:9606"
62 c 51 g 96
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        Similarity 99.5%;
32: Conservative
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Reed, S.G. and Wang, T. Tong.
Compounds and methods for diagnosis of lung-
Patent: US 6210883-A 27 03-APR-2001:
Location/Qualifiers
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es 24;
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                                           654 F
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130 c 119 g
     AR144162
Seguence 27 from patent
AR144162
                                                                 AR144162.1 GI:15105029
                                                                                          Unclassified.
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Matches 543;
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Reed, S.G. and Wang, T. Tong.
Compounds and methods for therapy of
Patent: US 6312695-A 27 06-NOV-2001;
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6312695.
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Seguence 245 from Patent WO0177168.
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27 from patent US 63
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130 c 119 g
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         Sequence 27 from patent
AR176349
AR176349.1 GI:17918704
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Eukaryota: Metazoa: Chordata: Craniata; Vertebrata: Euteleostomi;

Mammalia: Eutheria: Primates: Catarrhini: Hominidae: Homo

1 (bases 1 to 790)

Woessner, J., Tan.F., Marra, M., Kucaba, T., Yandell, M., Martin, J.,

Watth, G., Bowles, L., Wylle, T., Bowers, Y., Steptoe, M., Theising, B.,

Geisel, S., Allen, M., Underwood, K., Chappell, J., Person, B.,

Gibbons, M., Harvey, N., Pape, D., Chamberlain, A., Morales, R.,

Schurk, R., Pitter, E., Kohn, S., Swaller, T., Behymer, K., Hillie: J.,

Wilson, R. and Waterston, R.

Full Clone Sequencing of the Longest Available Member from Each

Onigene Cluster
                                                                                                                                                                                                                                                                                                                                                                                                       32567 ACTIGATATAAAAAGGATAICCATAAIGAATAITIIATACIGCAICCTIIACAITAGCCA 32624
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                                                    Length 183617;
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AF086101. AF086101.1 GI:3483446
           others
                                                                           Indels
 BAC 1
                                                     DB 2;
                                                     Score 525.4; DB 2;
Pred. No. 2.2e-124;
0; Mismatches 1;
Male
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56185
/clone_lib="RPCI-11
51905 a 36985 c 38442 g
                                                    Ouery Match 91.4%;
Best Local Similarity 99.1%;
Matches 570; Conservative
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2 (bases 1 to 790)
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AUTHORS
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NOTICE: This sequence represents the full insert of this cDNA. No attempt has been made to verify whether this corresponds to the full-length of the original mRNA from which it was derived. We have tried to obtain double-stranded, or double chemistry sequence across the entire clone, but potentially, there are areas in the sequence where this level of coverage was not achieved. Nevertheless, we are confident of the accuracy of this sequence as all regions of low quality, as defined by PHRAP (P. Green, in preparation), were visually inspected and edited accordingly. The consensus quality values for this sequence have been submitted
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                                  Missouri 63108, USA
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/db_xref="taxon:9606"
/clone="liMAGE:290464"
/clone_lib="Soares_multiple_sclerosis_2NbHMSP"
152 c 145 g 238 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 790;
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                 Department of Genetics,
Park Avenue, St. Louis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6
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Pred. No. 8e-121;
0; Mismatches 2;
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                                                                   Genome Sequencing Center
Department of Genetics
Washington University
St. Louis MO 6310B, USA
http://genome.wustl.edu/gsc
mailto:est@watson.wustl.edu
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Direct Submission
Submitted (24-AUG-1998)
University, 4444 Forest
SUBMITTED BY:
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98.9%;
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/note= LIMB3 repeat: matches 5926. .6176 of consensus 5136. .51550
/note= Alux repeat: matches 127. .:?! of consensus 53273. .53576
/note= Alux repeat: matches 3. .?!? of consensus 54377. .54432
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/note="MIR repeat: matches 61. .18" of consensus" 54927. .55102
/note="MIR repeat: matches 3. .183 of consensus" 55527. .55590
/note="MIR repeat: matches 3. .183 of consensus" consensus" 55527. .55590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 182914;
                                                                                                       /note="match: GSS: Em:A0075236"
46515. .46785
/note="L2 repeat: matches 2408. .2<sup>£</sup>58 of
7901. .48024
/note="AluJb repeat: matches 3. .125 of c
49747. .49910
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                     /note="L2 repeat: matches 2023, .2228 of 43755, .43899
.2718 of
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complement(55692. 55879)
/notes"match: STS: Em:L30443"
/notes"match: STS: Em:L18003"
                                                   /note="Milh1 repeat: matches 59.
43397. 45345
400te="LIPAB repeat: matches 4813.
45977. 45305
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99.1%; Pred. No. 2.2e-124;
tire 0; Mismatches 1;
/note="L2 repeat: matches 2580.
12426. .42626
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Matches 570; Conservative
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Streen, B., Linton, L., Nusbaum, C., Lander, E., Allen, N., Anderson, M., Baker, J., Baldwin, J., Barna, W., Beckerly, R., Benn, J., Brown, A., Castle, A., Cerny, J., Colangelo, M., Collins, S., Collymore, A., Cooke, P., Dearellano, K., Depayre, E., Devon, K., Dewar, K., Cooke, P., Doznellano, K., Depayre, E., Devon, K., Dewar, K., Doznelan, L., Doyle, M., Ferrelra, P., Fitzhugh, W., Forrest, C., Doznelan, L., Gardyna, S., Gilbert, D., Grant, G., Hagos, B., Heaford, A., Horton, L., Howland, J.C., Jones, C., Kann, L., Karatas, A., Lehoczky, J., Lieu, C., Locke, K., McLaughlin, J., Marquis, N., McEwan, P., McGurk, A., McKernan, K., McLaughlin, J., Malloff, M., O'Connor, T., O'Donnell, P., Pavilin, B., Peterson, K., Pollara, V., Riley, R., Roberts, D., Roy, A., Severy, P., Stange-Thomann, N., Stoo, Jonovic, N., Stone, C., Subramanian, A., Torruella-Miller, I., Vassiliev, H., Vo, A., Wagner, A., Wheeler, J., Wu, X., Wyman, D., Ye, W.J. and Zody, M. Direct Submission

Jurget Submission

All repeats were identified using RepeatMasker:

Submitted (11-MAY-1999) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA

Research, 320 Charles Street, Cambridge, MA 02141, USA

All repeats were identified using RepeatMasker:

Smit, A.F.A. & Green, P. (1995-1997)
                                                                                                                                                                                                                        Homo sapiens chromosome 9 clone RP11-30Al map 9, *** SEQUENCING IN PROCRESS ***, 2 ordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Research
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* are represented as runs of N. The order of the pieces is believed to be correct as given, however the sizes of the gaps between them are based on estimates that have provided by the submittor.

This sequence will be replaced by the finished sequence as soon as it is available and by the finished sequence as soon it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 183617)
Birran, B., Linton, L., Nusbaum, C. and Lander, E. Homo sapiens chromosome 9, clone RP11-30A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Center: Whitehead Institute/ MIT Center for Genome
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47187 183617: contig of 136431 bp in length.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                    AC007524.12 GI:16118190
HTG: HTGS_PHASE2; HTGS_FULLTOP; HTGS_ACTIVEFIN.
Web site: http://www-seq.wi.mit.edu
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/db_xref="taxon:9606"
/chromosome="9"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
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corresponding to the overlapping clone, as we submit sequences with only a small overlap as described above.

This sequence was finished as follows unless otherwise noted: all regions were either double-stranded or sequenced with an alternate chemistry or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats: all regions were covered by at least one plasmid subclone or more than one M13 subclone; and the assembly was confirmed by restriction digest. The following abbreviations are used to associate primary accession numbers given in the feature table with their source databases: Em. EMBL: Sx.; SMISSPROT: IT: TREMBL: Wp.; WORMPEP; Information on the WORMPEP database can be found at the primary accession numbers given thtp://www.sanger.ac.uk/Projects/C_elegans/wormpep This sequence was generated from part of bacterial chome contigs of human chromosome 9, constructed by the Sanger Geutre Chromosome 9 Mapping Group. Further information can be found at http://www.sanger.ac.uk/HGPVCht9 RP11-301F14 is from the library RPC1-11.2 constructed by the group of Pieter de Jong. For further details see
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             victors: particles and the entire insert of clone RP11-301F14 The true right end of clone RP11-351M4 is at 35779 in this sequence.

Location/Qualifiers

1. 182914

/organism="Homo sapiens"
/organism="Homo sapiens"
/chromosome=="9"
/clone="RP11-301F14"
/clone="RP11-301F14"
/clone="RP11-301F14"
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/clone="RP11-301F14"
/clone="RP15-301F14"
/clone="R
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/note-TWIT2D repeat: matches 5855. .6341 of consensus.
5119. .5782
/note-THERVL repeat: matches 5097. .5757 of consensus.
5794. .8852
/note-TIPA5 repeat: matches 5070. .5141 of consensus.
6853. .7814
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/note="HERVL repeat: matches 2857. .4181 of consensus"

9153. 9573. 9584

9574. 9584
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Anote="LIMA5A repeat: matches 5470. .6293 of consensus"

Anote="LI repeat: matches 4509. .4829 of consensus"

10953. .1126

J1267. .11381
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1054. .4557
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1405. .12429
https://dx.cpeat: matches 4922. .5939 of concensus
14192. .1423
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15827, .16136
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//Octe="HERVL repeat: matches 4125.
7847. 9162
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/note-*HERVL repeat: matches 2857.
9687. .10525
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 http://www.chori.org/bacpac/home.htm
VECTOR: pBACe3.5
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2017. 20584

// note="WER66B repeat: matches 1. 476 of consensus" 20860. 21033
// note="ML1JJ repeat: matches 90. 262 of consensus" 22186. 22489
// note="ML1JJ repeat: matches 1. 307 of consensus" 22185. 23422
// note="M1gger3b repeat: matches 1. 310 of consensus" 23423. 23725. 24655
// note="M1gger3b repeat: matches 11. 311 of consensus" 23726. 24055
// note="M1gger3b repeat: matches 11. 310 of consensus" complement(23993. 24656)
// note="M1gger3b repeat: matches 11. 365 of consensus" complement(23993. 24656)
// note="M1gger3b repeat: matches 5460. 6012 of consensus" 25401. 25529
// note="M1gger3b repeat: matches 54. 309 of consensus" 25601. 25611
// note="M1gger3b repeat: matches 54. 309 of consensus" 25601. 25611
// note="M1gger3b repeat: matches 54. 309 of consensus" 25602. 26099. 27026
// note="Link1 repeat: matches 5928. 6017 of consensus" 26019. 27026
// note="Link4 repeat: matches 2892. 3829 of consensus" 26099. 27026
// note="Link4 repeat: matches 2892. 3829 of consensus" 26999. 27026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  / Mote-"L2 repeat: matches 2540. .2750 of consensus" 281001. .28255 // note-"L2 repeat: matches 2540. .2750 of consensus" 29076. .31601 // note-"CpG island" // note-"CpG island" // note-"L9 copies 2 mer ca 92% conserved" // note-"19 copies 2 mer tg 78% conserved" // note-"19 copies 2 mer tg 78% conserved" // note-"match: STS: Em:G57804 match: GSS: Em:A0343604 // note-"match: GSS: Em:A0546349" // note-"match: GSS: Em:A0546349" // note-"match: GSS: Em:A0506050" // note-"match: GSS: Em:A0630236" // note-"match: Matchi: 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        consensus
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28295
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/note-"match: GSS: Em:AQ024170"
/1352. .42246
/note-"L2 repeat: matches 1042. .2013 of consensus"
42258. .42437
                             .2670 of consensus"
                                                                                                .311 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7.016 - "5 copies 9 mer tottittit 86% conserved" 35886. 37008 7.016 - "MIR repeat: matches 33. .145 of consensus" 3751. 37505 7.016 - "MADE1 repeat: matches 1. .80 of consensus" 37754. 37795 4.0035 4.0035 4.0035 4.0035
                                                                                                                                                                                                                                        .286 of consensus"
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36103. 36162
hote="30 copies 2 mer tt 81% conserved"
35177. 36161
                         /note="L2 repeat: matches 2330.
17784, .18071
                                                                                                   /note-"AluSq repeat: matches 25.
                                                                                                                                                                                                   /note="AluSc repeat: matches 1.
20117. .20584
                                                                                                              /note="match: GSS: Em:A0683961"
/1934. 19656
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During sequence assembly data is compared from overlapping clones. Where differences are found these are annotated as variations together with a note of the overlapping clone name. Note that the variation annotation may not be found in the sequence submission
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Direct Submission
Submitted (02-JUN-2001) Sanger Centre, Hinxton, Cambridgeshire,
CBIO 15A, UK. E-mail enquiries: humquery@sanger.ac.uk Clone
requests: clonerequest@sanger.ac.uk
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Copyright (c) 1993 - 2000 Compugen Ltd.
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Sequence 183, Application US/09030607

Sequence 183, Application US/09030607

FENERAL INFORMATION:

APPLICANT: AND Jiangchun

TITLE OF INVENTION COMPOUNDS FOR IMMUNOTHERAPY OF PROSTATE CANCER AND METHODS

TITLE OF INVENTION COMPOUNDS FOR IMMUNOTHERAPY OF PROSTATE CANCER AND METHODS

TORRESPONDENCE ADDRESS:

ADDRESSEE: SEED and BERRY LLP

ADDRESSEE: SEED and BERRY LLP

STREET: 6300 Columbia Center, 701 Fifth Avenue
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Sequence 198, Appli
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Sequence 59, P
Sequence 86, P
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pred. No. 5.1e-99;
1; Mismatches 2;
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      US-08-325-267A-3
US-08-362-525-21
US-08-362-267A-1
US-08-718-661-1
US-08-103-840A-2
US-08-864-038A-1
US-08-864-038A-4
US-08-962-223-198
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US-07-609-716-45
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NAME: MAK1, David J.
REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 210121.427C3
REFERENCE/DOCKET NUMBER: 110121.427C3
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                    ALIGNMENTS
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TELEFAX: (206) 622-6031
TELEFAX: (206) 622-6031
INFORMATION FOR SEQ ID NO: 183
SEQUENCE CHARACTERISTICS:
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TYPE: nucleic acid
STRWWDEDNESS: single
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Matches 379: Conservat
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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
                                                                                                                                                         April 29, 2002, 19:55:33 ; Search time 202.96 Seconds (without alignments) 462.318 Million cell updates/sec
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1: /cgn2_6/ptodata/2/ina/SB_COMB.seq:*
3: /cgn2_6/ptodata/2/ina/SB_COMB.seq:*
4: /cgn2_6/ptodata/2/ina/BCTUS_COMB.seq:*
5: /cgn2_6/ptodata/2/ina/PCTUS_COMB.seq:*
6: /cgn2_6/ptodata/2/ina/Pactus_COMB.seq:*
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                                                                                             Compugen Ltd
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Copyright (c) 1993 - 2000 Comp
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Maximum Match 100%
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Sequence 82, Application US/09020956
Patent No. 6261562
GENERAL INFORMATION:
APPLICANT: Xu, Jiangchun
APPLICANT: Dillin, Davin C.
TITLE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY OF PROSTATE CANCER AND METHOL
COPRESPONDENCE ADDRESS:
                                                          DB 4; Length 383;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . 2.6e-95;
-has 3; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DGS/MS-DOS
CURRENT APPLICATION DATA:
APPLICATION DATA:
FILING DATE: 09-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   92.9%; Score 354.8;
98.7%; Pred. No. 2.6e
tive 0; Mismatches
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                                                                                                                                                                                  35<u>0</u> gccattaaaaaaaaaaaaaaaa 382
                                                                                                                                                                                                  CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: MAKI, David J.
REGISTRATION NUMBER: 21012
TELEPOMUNICATION INFORMATION:
TELEPAX: (206) 622-4900
INFORMATION: CORP. 622-4900
INFORMATION FOR SEQ. ID NO: 82:
LENGTH: 383 base pairs
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nucleic acid
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CRGANISM: Homo sapiens
US-CG-C20-955-82
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Berlocal Similarity 98.79
Matches 378: Conservative
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STRANDEDNESS:
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HS-09-020-956-82
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APPLICANT: Xu, Jiangchun
APPLICANT: Xu, Jiangchun
APPLICANT: Willon, Davin C.
APPLICANT: Mitcham, Jennifer L.
APPLICANT: Hitcham, Jennifer L.
APPLICANT: Hitcham, Jennifer L.
APPLICANT: Heed, Steven G.
APPLICANT: Ralos, Michael
APPLICANT: Ralos, Michael
APPLICANT: Reter, Mark
APPLICANT: Reter, Mark
APPLICANT: Reter, Mark
APPLICANT: Reter, Mark
APPLICANT: Boy, John
APPLICANT: Day, Capi

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99.0%; Pred. No. 5.1e-99;
Live 1; Mismatches 2;
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Best Local Similarity 99.01
Matches 379; Conservative
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US-f--439-313-183
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APPLICANT: XU, Jiangchun
APPLICANT: XU, Jiangchun
APPLICANT: Witcham, Jounifer L.
APPLICANT: Mitcham, Jounifer L.
APPLICANT: Harlocker, Susan Louise
APPLICANT: Harlocker, Susan Louise
APPLICANT: Relos, Michael
APPLICANT: Relos, Michael
APPLICANT: Relos, Michael
APPLICANT: Rolos, Michael
APPLICANT: Bay, Craiq
TILLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
FILE REFERENCE: 210121.427C9
CURRENT APPLICATION NUMBER: US/09/439,313
CURRENT FILING DATE: 1999-11-12
MUMBER OF SEQ ID NOS: 575
COFFWARE: FastSEQ for Windows Version 3.0
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ilarity 98.7%; Pred. No. 2.6e-95;
Conservative 0; Mismatches 3;
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5. 6329505
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LOCATION: (1)...(38%)
; THER INFORMATION: n * A,T,C *
US-03-439-313-82
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post Local Similarity
Matches 378; Conserv
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Patent No. 6329505
CTWFPAL INFORMATION:
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APPLICANT: Million, Davin C.
IITLE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY OF PROSTATE CANCER AND METHODS I
IITLE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY OF PROSTATE CANCER AND METHODS I
NUMBER OF SEQUENCES: 224
CORRESPONDENCE ADDRESS: 224
ADDRESSEE: SEED and BEFRY LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
CITY: Seattle
STATE: WA
COUNTRY: USA
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COMPUTER: IBM PC compatible
COMPUTER: Patentin Release #1.0, Version #1.30
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
FILING DATE: 25-FEB-1998
CLASSIFICATION
ATTORNEY/ACENT INFORMATION:
NAME: Maki, David J.
REGISTRATION NUMBER: 31.392
REFERENCE/DOCKET NUMBER: 210121.427C3
TELECPHONE: (206), 522.4900
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98.7%; Pred. No. 2.5e-95;
iive 0; Mismatches 3:
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Patent No. 6262245
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ouery Match
Best Local Similarity 98.7
Matches 378; Conservative
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APPLICANT: Xu, Jiangchun APPLICANT: Xu, Jiangchun APPLICANT: Xi, Jiangchun C. TITLE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY OF PROSTATE CANCER AND METHODS NUMBER OF SEQUENCES: 224 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
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                                                                                                        Length 499;
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                                                                                                                                                                    87.9%; Score 335.6; DB 4;
98.8%; Pred. No. 1.3e-89;
                                                                                                                                                                                                                                                                                                                                                                                                  S: SEED and BERRY LLP 6300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Version #1.30
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JMBER: US/09/030,607
25-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDIUM TYPE: Floppy disk COMPUTER: 1BM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PATENTIN Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                           Sequence 73, Application US/09030607 Patent No. 6262245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Maki, David J. REGISTRATION NUMBER: 31,392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATICRNEY/AGENT INFORMATION:
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INFORMATION FOR SEQ ID NO: 7
SEQUENCE CHARACTERISTICS:
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Best Local Similarity 98.8
Matches 338; Conservative
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EDNESS: single
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FILING DATE: 25-FF
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US-09-030-607-73
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                                                       tgitaatcctgccagiciticicitcaagccagggigcatcctcagaaacctactcaaaca
                                                                 240 tgttaatcctgccagtctttctcttcaagccagggtgcatcctcayaaacctactcaaca
         0;
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
APPLICATION DATA:
APPLICATION NUMBER: US/09/020,956
FILING DATE: 09-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE: SEED and BERRY 1.1P
STREET: 6300 Columbia Center, 701 Fifth Avenue
CITY: Seattle
                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Xu, Jiangchun
APPLICANT: Dillin, Davin C.
IIILE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY NUMBER OF SEQUENCES: 178
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 335.5; DB 4,
Pred. No. 1.3e-89;
0; Mismatches 4;
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NAME: Maki, David J.
REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 210
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPHONE: (206) 622-4900
TELEFAX: (206) 682-6031
INFORMATION FOR SEQ ID NO: 73:
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98.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; ORGANISM: Homo sapiens US-09-020-956-73
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TYPE: nucleic acid
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121 1GGCCTTGGTGGAGCTGGTGCCAGCACCAGTGGCACTCTGGTGCCTGTGGTTTCTCCTA 180
                                             221 caagtgagattttagatattgttaatcctgccagtctttctcttcaagccagggtgcatc 280
                                                                                                                         Gaps
                                                                           181 CAAGIGAGAIIIIAGAIAIIGIIAAICCIGCCAGICIIICICIICAAGCCAGGGIGCAIC 240
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Pred. No. 1.3e-89;
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                                                                                                                                                                                   0; Mismatches
                                                                                                                                                                                                                                                                                                                      APPLICANT: Xu, Jiangchun
APPLICANT: Dillon, Davin C.
APPLICANT: Mitcham, Jennifer L.
APPLICANT: Harlocker, Susan Louise
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OTHER INFORMATION: n = A,T,C or
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98.88;
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Reed, Steven G.
Kalos, Michael
Fanger, Gary
Retter, Mark
Solk, John
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Post Local Similarity 98.87
Matches 338; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Homo sapien
                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                               RESULT 8
US-09-439-313-73
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LENGIH: 499
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APPLICANT:
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Nucleic acid molecules coding for mammalian tumor suppressor proteins and methods for their isolation
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Proteins
                                                                                                                                                                                                                                                                                                                             Version #1.30 (EPO)
COMPUTER: IRM PC compatible 'PERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.25 CIPRENT APPLICATION DATA: APPLICATION NUMBER: US/08/317,522A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE: Campbell and Flores
STREET: 4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11.9%; Score 45.4; DB 2; 61.3%; Pred. No. 0.00071;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                             TILLE OF INVENTION: Nucleic acid mole-
IIILE OF INVENTION: tumor suppressor I
NUMBER OF SEQUENCES: 15
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: 1BM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0. Vei
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/718,661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1, Application US/08317522A Patent No. 5599918 GENERAL INFORMATION: APPLICANT: Fukuda, Michiko N.
                                                                                                                         : Sequence 1, Application US/08718661
; Patent No. 5876972
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 530
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
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MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nucleic acid
EDNESS: single
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TITLE OF INVENTION: Pro
NUMBER OF SEQUENCES: 1:
COPRESPONDENCE ADDRESS:
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US-08-718-651-1
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                                                                                                             US-08-718-651-1
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Best Local 9
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LOCATION:
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US-08-439-818A-1
                                                                                                                             NAME/KEY?
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1, Application US/08439818A
Patent No. 5554145
CENERAL INFORMATION:
APPLICANT: FUNDANT: Trophinin and Trophinin-Assisting
TITLE OF INVENTION: Trophinin and Trophinin-Assisting
TITLE OF INVENTION: Proteins
NUMBER OF SEQUENCES: 22
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/439,818A
FILING DATE: 12-MAY-1995
CLASSIFICATION ATA:
APPLICATION NUMBER: US 08/317,522
FILING DATE: U4-OCT-1994
ATTORNEY/AGENT INFORMATION:
ATTORNEY/AGENTING ATTORNEY/AGENTING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 E: Campbell and Flores
4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RAME: Campbell, Cathryn A. REGISTRATION NUMBER: 31,815 REFERENCE/DOCKET NUMBER: P-LA 1563 TELEPHONE: (519) 535-9001 TELEPHONE: (519) 535-9001
                                                                                             P-LA 9991
FILING DATE: 04-OCT-1994
CLASSIFICATION: 535
ATORNEY-AGENT INFORMATION:
NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 31.815
REFRENCE/DOCKET NUMBER: P-LA
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 535-9001
TELEPHONE: (619) 535-9001
TELEPHONE: C19) 535-8949
INFORMATION FOR SED ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 2524 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                       Ouery Match
Best Local Similarity 55.28
Matches 85; Conservative
                                                                                                                                                                                                                                                                                                           ; NAME/KEY: CDS
; LOCATION: 28..2275
US-08-317-522A-1
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STATE: California
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                                                                                                                                                                                                                                                          Score 43.6; DB 1; Length 2524; Pred. No. 0.0023;
                                                                                                                                                                                                                                                                                                          69; Indels
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IIILE OF INVENTION: Trophinin and Trophinin-Assisting
IIILE OF INVENTION: Proteins
HUMBER OF SEQUENCES: 22
CORRESPONDENCE ADDRESS:
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UPERMILIUS DISLEM:
UPRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/751,965
FILING DATE: Herewith
CLASSIFICATION DATA:
PRIOR APPLICATION DATA:
PAPLICATION NUMBER: US 08/439,818
FILING DATE: 12-MAY-1995
ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 13.815
REFERENCE/DOCKET NUMBER: P-LA 2252
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE: Campbell and Flores
STREET: 4370 La Jolla Village Drive, Suite 700
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Sequence 1. Application US/08751965
Patent No. 5858350
GENERAL INFORMATION:
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TELEFAX: (619) 535-8949
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
INFORMATION FOR SEQ ID NO: 1: SEQUENCE CHARACTERISTICS: LENGTH: 2524 base pairs TYPE: nucleic acid STRANDEDNESS: single TOPOLOGY: linear
                                                                                                                                                                                                                                                                   Ouery Match
Best Local Similarity 55.2%;
Matches 85; Conservative
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TYPE: nucleic acid
STRANDEDNESS: single
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MEDIUM TYPE: Floppy disk
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28..2275
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CITY: San Diego
STATE: California
                                                                                                                                                                                    28..2275
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96 agcaccaqtqqtgqcttcaqtgctgqtgccaqcctgacqccactctcacatttggqctc 155
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                                                                                        811 AGCACCAGIGCCAAITIIGGIGGIACACIAAGIACCAGCAICIGCIIIGAIGGCICICCC 870
                                                       95 agcaccagtggtggtggttcagtgctggtqccagcctgaccgccactctcacatttgggctc 155
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US-08-728-626-1
US-08-728-626-1
Sequence 1, Application US/08728626
Patent No. 5910451
GENERAL INFORMATION:
TILLE OF INVENTION: Trophinin and Trophinin-Assisting
TILLE OF INVENTION: Proteins
NUMBER OF SEQUENCES: 22
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PatentIn Release #1.0, Version #1.25
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pred. No. 0.0023;
0; Mismatches 69;
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4370 La Jolla Village Drive, Suite 700
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CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/439,818
FILING DATE: 12-MAY 1995
ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn A.
REGISTRAINON NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-LA 1563
IELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 535-9001
TELEPHONE: (619) 535-9001
TELEPHONE: (619) 535-901
SEQUENCE CHARACTERISTICS:
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55.2%;
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Best Local Similarity 55.2
Matches 85: Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: nucleic acid
STRANDEDNESS: single
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy O
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California
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FEATURE:
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US-08-728-525-1
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                                                                                                                                                                    0;
                                                                                                         Score 43.6; DB 2; Length 2524; Pred. No. 0.0023; 0; Mismatches 69; Indels 0;
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US-08-738-975-1
Sequence 1, Application US/08738975
Fatent No. 5880267
GENERAL INFORMATION:
APPLICANT: FURUDA Michiko N.
TITLE OF INVENTION: Trophinin and Trophinin-Assisting
TITLE OF INVENTION: Proteins
NUMBER OF SEQUENCES: 22
CORRESPONDENCE ADDRESS:
ADDRESSEE: Campbell and Flores
ADDRESSEE: Campbell and Flores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
GURRENT APPLICATION NATA:
APPLICATION NUMBER: US/08/738,975
FILING DATE: herewith
CLASSIFICATION: 435
PRIOR APPLICATION A:
APPLICATION NUMBER: US 08/439,818
FILING DATE: 05-Dec-1995
ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn A:
REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-LA 2251
TELEPHONE: (619) 535-9001
TELEPHONE: (619) 535-9001
TELEPHONE: (619) 535-9001
TELEPHONE: (619) 535-901
TELEPHONE: CARRACTERISTICS:
LENGTH: 2524 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                          11.4%;
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Best Local Similarity 55.2
Matches 85; Conservative
                                                                                                                           Ouery Match 11.4%
Best Local Similarity 55.2%
Matches 85; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28..2275
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STATE: California
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; LOCATION:
US-08-738-975-1
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                                            US-08-751-965-1
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Job time: 22735 sec
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GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: Trophinin, Trophinin-Assisting
TITLE OF INVENTION: Trophinin, Trophinin,
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; Sequence 1, Application US/08808599A
; Patent No. 6111089
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TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
FEATURE:
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; LOCATION: 28..2275
US-08-808-599A-1
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Search completed: April 29, 2002, 19:55:38

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HSA293618 1986 bp mRNA linear PRI 21-DEC-2000
Homo sapiens mRNA for hypothetical protein 1186, clone XP1186.
AJ293618 AJ293518.1 GI:11967745
HUM1186 gene: hypothetical protein 1186.
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Langmaess, K.
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Langmaess, K.
Submission
Submistred (19-JUL-2000) Langmaese K., Institute for Human Genetics, Otto-von-Guericke University, Leipziger Strasse 44, D-39120
Magdeburg, D-39120, GERMANY
Magdeburg, D-39120, GERMANY
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       102544 Human hepat

BC000304 Homo sapi

AX015361 Sequence

AX137185 Sequence

AX106402 Sequence

AX20053 Sequence

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AX20052 Sequence

AX207108 Sequence

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AX207118 Sequence

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AX207114 Mus muscu

A7207114 Mus muscu

A723617 Rettus no

G06147 human STS W

AF719976 Mus muscu
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ALI1258 BOUTYIS
AC08786 Homo sapi
AC08552 Escherich
AL138722 Human DNA
AL138528 Homo sapi
AC020706 Homo sapi
AC020706 Homo sapi
AC020708 Human DNA
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AC078907 Homo sapi
AC090611 Homo sapi
S53307 per-period
A31598 Mumusculus
X02966 Mouse DNA
AX099294 Sequence
AX099294 Sequence
AX099294 Sequence
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia: Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 1986)
Lanquaese, K., Kloos, D.U., Wehnert, M. and Wieacker, P.
Cloning a novel protein with similarity to the MAGE family
Unpublished
8 Homo sapi
Human hepat
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ACO87886
ACO8562
AFD138722
HSR801496
AFZ58554
ACO20706
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ACO20610
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Copyright (c) 1993 - 2000 Compugen Ltd
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                                                                                                                    /product-"hypothetical protein 1185"
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Human hepatocellular carcinoma associated protein (JCL-1) mRNA, complete cds.
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Eukaryota: Metazoa; Chordata: Craniata: Vertebrata: Euteleostomi:
Hammalia: Eutheria; Primates; Catarrhini; Hominidae: Homo.
1 (bases 1 to 2064)
Jin.C.L., Wang, D.Y., Wan, D.F. and Gu, J.R.
Hepatocellular Carcinoma Associated Gene JCL-1
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Local Similarity 100.0%; Pred. No. 1.7e-99;
hes 380; Conservative 0; Mismatches 0;
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      /organism="Homo sapiens"
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/clone="xpllB6"
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99 Gene="CL-1"

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/ protein_id="AAD0
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Direct Submission
Submitted (10-MAR-1997) National Laboratory for Oncogenes and
Related Genes, Shanghai Cancer Institute, No. 25, Ln. 2200, Xie-Tu
Rd., Shanghai 200032, People's Republic of China
Location/Qualifiers
1. 2064
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99.5%; Pred. No. 3.7e-99;
iive 0; Mismatches 2;
                                                                                                                                                                                                               /organism="Homo sapiens"
/db_xref="taxon:9606"
1. .2064
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67. 1887
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Best Local Similarity 99.5
Matches 380; Conservative
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USA

PEMARK

COMMENT

AUTHORS TITLE JOURNAL

REFERENCE

OPGANISM

KEYWORDS SOURCE

VERSION

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PAT 07-SEP-2000
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Eukaryota; Metazoa; Chordata; Craniata: Vertebrata; Euteleostomi:
Mammalia: Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 1462)
Schmitt,A., Specht,T., Dahl,E., Hinzmann,B., Rosenthal,A. and
Pilarsky,C.
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1691 AGGGGGAGCAGAAGCTAAAGCCAAAGCCCAAGAGTGGCAGTGCCAGCAGTGCCAGCAGTGCCA 1750.
                                                                 Length 1462;
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Pred. No. 3e-98;
0; Mismatches 4;
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Sequence 20 from Patent W09951727.
AX015361.1 GI:10041341
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/db_xref="taxon:9606"
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JOURNAL
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AX015361
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/ LEGINSTALE CONTROL ON THE WORK SEGACITREOAEASEKDSSSMMOTLLITYTONYEVPETPK
ASKALEVSEDVYKSKASGVSKATEVSKTPEAREAPATOASSTTOLTDTOVLAAENKSL
AADTKKONADPOAYTUPATETKYKSHVADTKVHTKNGSADADEPEPESAAA
AOTKKONADPOAYTUPATETKYKSHVADTKYNTKKNGSADADEPEESAAA
GSGENODTPRYKRAKRKYKHLDGEDGSSDOSOASGTTGGRRVSKALMASHARRAS
GSGENODTPRYKRAKRRKHLISLESPKARRGKARRRAKLOSSOEPEAPPRDV
ALLOGRANDLYKLLAKDOTKIPH KRSDMIKKDIKKPTOVYPETIFRAGYSLEKYFGI
QLKEIDKNDHLYTLLSTLEPTDAGILGTTKDSPKLGLLAMIL.SIFRNGSRAVIW
EVLKKLGLRPGIHHSLFGOYKLITDEFVKOKYLDYARVPNSNPPEYEFFGILSSYYE
TSKKKYLKRACKYOKKDPKEWAAOYREAMEADLKAAARRARARIRARWIGLG
SENAAGPCNWDEADIGPWAKARLOGGESASTGASTSTNNSAGASTS
GGFSAGASLTATLIFGLFAGGAGAGATSGGSSASTGASTSTNNSAGASASTS
31 a 527 c 587 g 412 L
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Series: IRAL Plate: 1 Row: c Column: 17
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 3288022.
                                                                                                                                                                                                                                                                                                                                                                                                                                            web site:

http://www.nisc.nih.gov/
contact:
shevchenko.v.wetherby.k.D., Beckstrom-Sternberg.S.M.,
Benjamin.B., Blakesley.R.W., Bouffard.G.G., Brinkley.C., Brooks.S.,
Benjamin.B., Blakesley.R.W., Bouffard.G.G., Brinkley.C., Legaspi.R.,
Lim.M., Maduro.O.L., Masiello.C., Mastian.S.D., McCloskey.J.C.,
McDowell.J., Pearson.R., Snyder.B., Stantripop.S., Thomas.P.J.,
Tlongson.E.E., Touchman.J.W., Tsurgeon.C., Vogt.J.L., Walker.M.A.,
Zhang.L.-H. and Green.E.D.
                                                                                                        Enteleostomi:
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Submitted (15-NDV-2000) National Institutes of Health, Mammalian
Gene Collection (MCC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590.
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Contact: MGC help desk
Email: cgapbs-r%mal.nih.gov
Tissue Procurement: DCID/DTP
CDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: National Institutes of Health Intramural
Sequencing Center (NISC),
Gaithersburg, Maryland:
Web site:
                                                                                                Eukaryota: Metazoa: Chordata; Craniata; Vertebrata; Eutele
Mammalia: Eutheria; Primates; Catarrhini: Hominidae: Homo.
1 (bases 1 to 2077)
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/organism="Homo sapiens"
/db_xref="LocusID:10916"
/db_xref="Laxon:9606"
/db_xref="taxon:9606"
/tissue_type="Lung, small cell carcinoma"
/tissue_type="Lung, small cell carcinoma"
/lab_bost="bH108-R"
/note="Vector: pOIB7"
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ilarity 99.5%; Pred. No. 3.7e-99;
Conservative 0; Mismatches 2; Indels
          BC000304.1 GI:12653076
MGC.
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Matches 380; Conserv
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                                                                                           Homo sapiens
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Query Match

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RESULT 7
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AUTHORS
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Horrigan,S., Soppet,D.R. and Weaver,Z.
Cancer gene determination and therapeutic screening using signature.
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0
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ilarity 97.9%; Pred. No. 1.9e-96;
Conservative 0; Mismatches 8;
                                                                                                                                             DNA
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Sequence 7694 from Patent WO0194629.
AX337185
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/db_xref="taxon:9606"
111 c 123 g 111
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                                                                                                    1415 CCATTICTGAAAAAAAAAAAAA 1436
                                                                                    361 ccattaaaaaaaaaaaaaa 382
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Mammalia; Eutheria;
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Matches 374;
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AX337185/c
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Eukaryota: Metazoa: Chordata: Craniata: Vertebrata: Buteleostomi:
Mammalia: Butheria: Primates: Catarrhini: Hominidae: Homo.
Mammalia: Ditheria: Primates: Catarrhini: Hominidae: Homo.
Mammalia: Ditheria: Primates: Catarrhini: Hominidae: Homo.
Xu.3.. Dillon,D.C., Mitcham,J.L., Harlocker,S.L., Jiang,Y.,
Reed,S.G., Kalos,M.D., Retter,M.W., Stolk,J.A., Day,C.H.,
                                                                                                            Homo sapiens
Eukaryota: Metazoa: Chordata: Craniata: Vertebrata; Euteleostomi;
Mammalia: Eutheria: Primates: Catarrhini; Hominidae: Homo.
1 (bases 1 to 384)
Xu, J., Skeiky, Y.A., Reed, S.G. and Cheever, M.A.
Compositions and methods for therapy and diagnosis of prostate
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gcreacccreacccccaccccccattrggcccttgcctggccttggtgagctggt 180
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Pest Local Similarity 99.0%; Pred. No. 6.1e-96;
Matches 379; Conservative 1; Mismatches 2;
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Sequence 183 from Patent WO0134802.
AX140693
Sequence 183 from Patent W00125272.
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                                                                                                                                                                                                                                                                                                /organism="Homo sapiens"
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102 c 90 g 8
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                                                        AX105402.1 GI:13922081
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Eukaryota: Metazoa: Chordata: Craniata: Vertebrata: Eutei-ostomi:

Mammalia: Eutheria: Primates: Catarrhini: Hominidae: Horr.

1 (bases 1 to 384)

Xu,J., Dillon,D.C., Mitcham,J.L., Harlocker,S.L., Jiang.Y.,

Stol,X.J., Skeiky,Y.A., Wang,A. and Meagher.M.J.

Stolk,J.A., Skeiky,Y.A., Wang,A. and Meagher.M.J.

Compositions and methods for the therapy and diagnosis of prostate
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Pred. No. 6.1e-96;
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                             Patent: WO 0134802-A 183 17-MAY-2001; CORIXA CORPORATION (US)
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/db_xref="taxon:9606"
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/organism="Homo sapiens"
/db_xref="taxon:9606"
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Xu,J., Dillon,D.C., Mitcham,J.L., Harlocker,S.L., Jiang,Y..,
Kalos,M.D., Fanger,G.R., Retter,M.W., Stolk,J.A., Day,C.H.,
Vedvick,I.S., Carter,D., Li,S.X., Wang,A., Skeiky,Y.A., Hepler,W.T.
and Henderson,R.A.
Compositions and methods for the therapy and diagnosis of prostate
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Matches 379; Conservative 1; Mismatches 2;
 Score 367.4; DB 6;
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Sequence 183 from Patent WO0173032.
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/db_xref="taxon:9606"
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PAT 31-MAY-2001
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Bukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Bukaryota: Metazoa; Chordata; Catarrhini; Hominidae; Homo.

Mammalia: Eutheria; Primates; Catarrhini; Hominidae; Homo.

(Dases 1 to 383)

Xu,J., Dillon,D.C., Mitcham,J.L., Harlocker,S.L., Jiang,Y.,

Xu,J., Dillon,D.C., Metter,M.W., Stolk,J.A., Day,C.H.,

Skeiky,Y.A. and Wang,A.

Compositions and methods for the therapy and diagnosis of prostate
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82 from Patent WO0151633.
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Sequence 82 from Patent WO0134802.
AX140592
AX140592.1 GI:14280710
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/db_xref="taxon:9606"
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Eukaryota; Metazoa; Chordata: Craniata; Vertebrata: Euteleostomi:
Mammalia; Eutheria; Primates: Catarrhini; Hominidae: Homo.
1 (bases 1 to 383)
Xu,J., Skeiky,Y.A., Reed,S.G. and Cheever,M.A.
Compositions and methods for therapy and diagnosis of prostate
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92.9%; Score 354.8; DB 6.
Best Local Similarity 98.7%; Pred. No. 2.8e-92;
Matches 378; Conservative 0; Mismatches 3
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CORIXA COPPORATION (US)
LOCATION/QUALIFIERS
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Sequence 82 from Patent W00125272.
AX106301.1 GI:13921987
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/db_xref="taxon:9606"
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Homo sapiens clone sntl breast cancer associated gene 1 protein (BCG1) mRNA, complete cds.
AF128527.1 GI:4928043
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Kurt.R.A. and Urba,W.J.

Direct Submission

Direct Submitsed (15-FEB-1999) Cellular Immunology, Earle A. Chiles

Research Institute, Franz Cancer Research Center, 4805 NE Glisan, Portland, OR 97213, USA
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Eukaryota: Metazoa: Chordata: Craniata; Vertebrata; Euteleostomi;
Fukaryota: Metazoa: Chordata: Catarrhini; Hominidae: Homo.
1 (Bases 1 to 2001)
Kurt.R.A. and Urba,W.J.
Isolation of breast cancer associated gene 1 from normal mammary
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/organism="Homo sapiens"
/db.xref="taxon:9606"
/clone="sntl"
/tissue_type="normal mammary epithelium"
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Pred. No. 2.8e-92;
....matches 3;
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Patent: WO 0173032-A 82 04-OCT-2001;
CORIXA CORPORATION (US)
Location/Qualifiers
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/db_xref="taxon:9606"
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Xu,J., Dillon,D.C., Mitcham,J.L., Harlocker,S.L., Jiang,Y.,
Kalos,M.D., Fanger,G.R., Retter,M.W., Stolk,J.A., Day,C.H.,
vedrick,T.S., Carter,D., Li,S.X., Wang,A., Skeiky,Y.A., Heplor,W.T.
and Henderson,R.A.
Compositions and methods for the therapy and diagnosis of prostate
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                        Eukaryota. Buteazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 383)

Xu,J., Dillon,D.C., Mitcham,J.L., Harlocker,S.L., Jiang,Y., Peed,S.G., Kalos,M.D., Fanger,G.R., Day,C.H., Retter,M.W., Stolk,J.A., Skeiky,Y.A., Wang,A. and Meagher,M.J.
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CORIXA CORPORATION (US)
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Sequence 82 from Patent WO0173032.
AX267108
AX267108.1 GI:15515893
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/db_xref="taxon:9506"
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/trablation="M8DTSESGAGLTRFQAEASEKDSSSMMQTLLTVTONVEVPETPK
/trablation="M8DTSESGAGLTRFQAEASEKDSSSMMQTLLTVTONVEVAENSI
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ACDTKKQNADPQAYUMPATETKVSHVADTKVNIKNOETEAAPGARADEPEPESAAA
QSQEBOQDTRFWYKRAKRARKVHLDGEDGSSDOGOASGTTGGRRVGKRALAMSAMARRAS
QSQEBOQDTRFWYKRAKRARKVHLDGEDGSSDOGOASGTTGGRRVGKRARARAR
ALLOGRANDLVKTLLAKDOTK IPIKRSDMKADIKKARANKLOKSREPEAPPFRDV
ALLOGRANDLVKTLLAKDOTK IPIKRSDMKADIKGTAKTOVPENIERAGSTERVFGI
QLKELDROHULTILLESTLEPTDAGILGTTKDSPKLGLLAMLLSIFRNGRSSEAVIM
EVLRKGLRFGIHHSLEGDVKKLINDEFVKGYLDYARVPNSNPFEYEFFWGLRSYYE
ISKMXVLKFACKVOKKDPKBWAAOYREAMEADLRAAARARARARARARARIRARMGIGLG
SENAAGCNWDEADLGWAKARIQAGAGAGKSTGGSSASTGASISTHNSASASASIS
GGESAGASLIATLTFGLLFGGGGAGAGSTGSSGAGGFSYK"

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Eukaryota: Metazoa: Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia: Eutheria: Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 499)
Xu,J., Skeiky,Y.A., Reed,S.G. and Cheever,M.A.
Compositions and methods for therapy and diagnosis of prostate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /codon_start=1
/product="breast cancer associated gene 1 protein"
/protein_id="AAD33392.1"
/db_xref="G1:4928044"
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Best Local Similarity 100.0%; Pred. No. 2.7e-87;
Matches 338; Conservative 0; Mismatches 0; Indels (
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Seguence 73 from Patent WO0125272.
AX106292
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/db_xref="taxon:9506"
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Patent: WO 0125272-A 73
CORIXA CORPORATION (US)
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         /gene="BCG1"
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                     Score 335.6; DB 6
pred. No. 1.1e-86;
0; Mismatches 4;
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Job time: 21488 sec
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                       Obery Match
Best Local Similarity 98.8%;
Matches 338; Conservative
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APPLICANT: Philippsen, Peter
APPLICANT: Poblumann. Rainer
APPLICANT: Steiner, Sabine
APPLICANT: Mendland, Unique
APPLICANT: Mendland, Jurgen
APPLICANT: Rebischung, Corinne
TITLE OF INVENTION: GENOMIC DNA SEQUENCES OF ASHBYA GOSSYPII
TITLE OF INVENTION: AND USES THEREOF
NUMBER OF SEQUENCES: 1152
CORRESPONDENCE ADDRESS:
ADDRESSEE: No. 6239264artis Corporation
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MEDIUM TYPE: Floppy disk
COMPUTER: EMB PC compatible
COMPUTER: EMB PC compatible
COMPUTER: DatentIN FC-DOS/MS-DOS
SOFTWARE: PatentIN Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/998,416
FILING DATE: 24-DEC.1997
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: CH 0016/97
FILING DATE: 31-DEC.1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Maigs, J. Timothy
REGISTRATION NUMBER: 38,241
REFERENCE/DOCKET NUMBER: PF/5-30306/A/CGC1976
FELCOMMUNICATION INFORMATION:
TELEPHONE: 919-541-8587
TELEFRAX: 919-541-8689
US-08-358-928-67
US-08-61-472-69
US-08-930-285-17
US-08-998-416-135
US-08-998-416-135
US-09-128-314-4
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US-08-1096-99-1
US-08-103-808-9
US-08-703-808-9
US-08-703-808-9
US-08-703-808-9
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                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 135, Application US/08998416; Patent No. 6239264; GENERAL INFORMATION:
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MOLECULE TYPE: DNA (genomic)
ORIGINAL SOURCE:
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TYPE: nucleic acid
STRANDEDNESS: single
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 ORGANISM: PAG1051UP
   27709
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US-08-998-416-136
     0000000000
                                                                                                                    ; Search time 308.52 Seconds
  (without alignments)
  1004.220 Million cell updates/sec
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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
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    /cgn2_6/ptodata///ina/68_COMB.seq:*
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    /cgn2_6/ptodata///ina/PCTUS_COMB.seq:*
                        GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.
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5-08-998-416-55
5-09-020-956-33
5-09-030-607-33
5-08-975-316-50
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US-08-998-416-55
US-08-998-416-55
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US-09-030-607-33
US-09-030-607-1
US-09-030-607-1
US-09-030-607-2
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US-08-713-000-4
US-08-713-000-4
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US-08-713-000-4
US-08-713-000-4
US-08-805-316-4
US-08-805-334-1
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US-08-992-334-2
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Maximum DB
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RESOBLES APPLICATION US/09030607

SEQUENCE 33. APPLICATION US/09030607

SEMEDAL INFORMATION:
APPLICANT: Xu, Jiangchun
APPLICANT: Xu, Jiangchun
TILLE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY OF PROSTATE CANCER AND METHODS
UNHBER OF SEQUENCES: 224
                                                                                                                                                                                                                                                                                                                                  APPLICANT: Xu, Jiangchun APPLICANT: Xu, Jiangchun APPLICANT: Xu, Jiangchun C. TITLE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY OF PROSTATE CANCER AND METHODS NUMBER OF SEQUENCES: 178
CORRESPONDENCE ADDRESS:
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APPLICATION NUMBER: US/09/020,956
                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: SEED and BERRY LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
CITY: Seattle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ouery Match
Best Local Similarity 100.0%; Pred. No. 8.6e-18;
Matches 58; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATIORNEY/AGENT INFORMATION:
NAME: Maki, David J.
REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 210121.427C2
TELECOMBUNICATION INFORMATION:
TELEPHONE: (206),622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         UMBER: US/09/020,956
09-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                          Sequence 33, Application US/09020956; Patent No. 5261562
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE: (206) 622-4900
TELERAYFFF (206) 682-6031
INFORMATION FOR SEQ ID NO: 33: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 793 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
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US-09-020-956-33
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                                                                                                                             11111111
207 GTAATCAT 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         USA
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SIRANDEDNESS:
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US-09-020-956-33
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                                                                                                                                                                                                  118 GCCACCGCGGTGGAGCTCCAGCTITTGTTCCCTTTAGTGAGGGTTAATTGCSCGCTTGGC 217
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APPLICANT: Philippsen, Peter
APPLICANT: Poblamen, Palner
APPLICANT: Steiner, Sabine
APPLICANT: Wendland, Jurgen
APPLICANT: Wendland, Jurgen
APPLICANT: Receltle, Philipp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 71:
                                                                            Length 703;
                                                                                                                        0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: PAPLICATION NUMBER: US/08/998,416 FILING DATE: 24-DEC-1997 CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5.0%; Score 68; DB 4; Li
ilarity 100.0%; Pred. No. 8.7e-18;
Conservative 0; Mismatches 0;
                                                                            DB 4; Le
8.7e-18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Meigs, J. Timothy
REGISTRATION NUMBER: 38.241
REPERENCE/DOCKEI NUMBER: PF/5-30306/A/CGC1976
TELECOMUNICATION INFORMATION:
TELEPHONE: 919-541-8587
                                                                          Ouery Match 5.0%; Score 68; DB Best Local Similarity 100.0%; Pred. No. 8.7 Matches 68; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
ADDRESSEE: No. 6239264artis Corporation STREET: 3054 Cornwallis Road CITY: Research Iriangle Park STAIE: No. 6239264th Carolina COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
APPLICATION NUMBER: CH 0016/97
FILING DATE: 31-DEC-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 55, Application US/08998416 Patent No. 6239264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: linear MOLECULE TYPE: DNA (genomic) ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 919-541-8689
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 716 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PAG1015UP
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Best Local Similarity
Matches 58; Consery
                                                                                                                                                                                                                                                                       1359 gtaatcat 1355
                                                                                                                                                                                                                                                                                                   218 GTAATCAT 225
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          US-08-998-416-136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-08-998-416-55
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186 GTAATCAT 179
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       : MOLECULE TYPE:
US-09-020-955-1
                                                                                                                                                                                                                                                                                      TOPOLOGY:
                                                                                                                                                                                                                                                                                                      US-08-975-316-50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET:
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US-09-020-956-1
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Sequence 50, Application US/08975316

Sequence 50, Application US/08975316

Fatent No. 5952486

GENERAL INFORMATION:
APPLICANT: BLOKSBERG, Leonard N., HAVUKKALA, 11kka
APPLICANT: and GRIERSON, Alastair W.
TITLE OF INVENTION: MATERIALS AND METHODS FOR
TITLE OF INVENTION: MATERIALS AND METHODS FOR
CORRESPONDENCE ADDRESS:
ADDRESSE: Law Offices of Ann W. Speckman
STREET: 2601 Elliott Avenue, Suite 4185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5.0%; Score 68; DB 4; Length 793; 100.0%; Pred. No. 8.6e-18; tive 0; Mismatches 0; Indels
                                                                                                                                    MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DCS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/030,607
FILING DATE: 25-FEB-1998
                   ADDRESSEE: SEED and BERRY LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM: DOS
SOFTWARE: FastSEO for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: 15/08/975,316
                                                                                                                                                                                                                                                                                            ATTORNEY AGENT INFORMATION:
NAME: Maki, David J.
REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 210121.427C3
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-6900
TELEFAX: (206) 682-6011
INFORMATION FOR SEQ ID NO: 33:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPPERATING SYSTEM: DOS
SOFTWARE: FastSE0 for Win
                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 793 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity 100.0
Matches 68; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
                                                                                                                            COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                : TOPOLOGY: linear
; MOLECULE TYPE: cDNA
US-09-030-607-33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1359 gtaatcat 1366
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                               STREET: 630v CITY: Seattle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     USA
                                                                                          USA
                                                     CITY: Seatt.
STATE: WA
COUNTRY: US
ZIP: 98104
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GENERAL INFORMATION:
APPLICANT: Xu, Jiangchun
APPLICANT: Xu, Jiangchun
APPLICANT: Dillin, Davin C.
TITLE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY OF PROSTATE CANCER AND METHODS
NUMBER OF SEQUENCES: 178
CORRESPONDENCE ADDRESS:
ADDRESSEE: SEED and BERRY LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 801;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-COS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION NUMBER: US/09/020,956
FILING DATE: 09-FEB-1998
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        :: SEED and BERRY LLP
6300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                     Ouery Match 5.0%; Score 68; DB 2; L. Best Local Similarity 100.0%; Pred. No. 8.6e-18; Matches 68: Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: 210121.427C2 IELECOMMUNICATION INFORMATION: TELEPHONS: (206) 622-4900 IELEFAX: (206) 682-6031 INFORMATION FOR SEQ ID NO: 1:
                                                                                                                 11000/1003C1
APPLICATION NUMBER: 08/713,000
FILING DATE: September 11, 1996
ATTORNEY/AGENT INFORMATION:
                                                              NAME: SLEATH, Janet
REGISTRATION NUMBER: 37,007
REFERENCE/DOCKET NUMBER: 11000
TELECHMUNICATION INFORMATION:
TELEPHONE: 206-269-0565
TELEFAX: 206-269-0563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1, Application US/09020956 Patent No. 6261562
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NAME: Maki, David J.
REGISTRATION NUMBER: 31,392
                                                                                                                                                                                                        TELEX:
INFORMATION FOR SEQ ID NO: 5, SEQUENCE CHARACTERISTICS:
LENGTH: 801 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Floppy disk
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TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
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COMPUTER READABLE FORM:
MEDIUM IYPE: Floppy
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APPLICANT: Xu, Jiangchun
APPLICANT: Xu, Jiangchun
APPLICANT: Xu, Jiangchun
TITLE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY OF PROSTATE CANCER AND METHODS
TOWNER OF SEGURACES: 224
CORRESPONDENCE ADDRESS:
GENERAL INFORMATION:
APPLICANT: Xu, Jiangchun
APPLICANT: Xu, Jiangchun
APPLICANT: Dillin, Davin C.
IIILE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY OF PROSTATE CANCER AND METHODS NUMBER OF SEQUENCES: 178
CORRESPONDENCE ADDRESS:
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Pred. No. 8.6e-18;
0; Mismatches 0; Indels
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COMPUTER: 1BM PC compatible
COMPUTER: 1BM PC compatible
SOFIWARE: Patentin Release #1.0, Version #1.30
CURRENI APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
RAPLICATION NUMBER: US/09/020,956
FILING DATE: 09-FEB-1998
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEED and BERRY LLP
6300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                    ADDRESSEE: SEED and BERRY LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
CITY: Sattle
STATE: WA
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ouery Match 5.0%; Score 68; DB Best Local Similarity 100.0%; Pred. No. 8.6 Matches 58; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY AGENT INFORMATION:
NAME: Maki. David J.
REGISTRATION NUMBER: 31.392
REFERENCE/PC-KKT NUMBER: 210121.427C2
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-6031
INFORMATION FOR SEQ 1D NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-030-507-2
: Sequence 2. Application US/09030607
: Patent No. 6262245
: GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 815 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
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APPLICANT: Xu, Jiangchun
APPLICANT: Dillon, Davin C.
TITLE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY OF PROSTATE CANCER AND METHODS FOR NUMBER OF SEQUENCES: 224
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
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100.0%; Pred. No. 8.5e-18;
17e 0; Mismatches 0: Indels
                                          Lenath 814;
                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/030.607
FILING DATE: 25-FEB-1998
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
ADDRESSEE: SEED and BERRY LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
                                              DB 4; Le
8.5e-18;
                                          Ouery Match 5.0%; Score 68; DB Best Local Similarity 100.0%; Pred. No. 8.5 Matches 68; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
NAME: MAKI, David J.
REFISTRATION NUMBER: 31,392
REFERENCE/POCKET NUMBER: 210121.427C3
TELECOMMUNICATION INFORMATION:
TELEFHONE: (206) 622-4900
TELEFAX: (206) 682-6931
INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; Sequence 2, Application US/09020956
; Patent No. 6261562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1, Application US/09030507
Patent No. 6262245
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Best Local Similarity 100.0%; Pr
Matches 68; Conservative 0;
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 814 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear MOLECULE TYPE: CDNA
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                                                                                                                                                                                                                                                                                                                                                    STREET: 6300 CCITY: Seattle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     USA
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US-08-975-316-4/C
Sequence 4, Application US/08975316
Sequence 4, Application US/08975316
Sequence 10. 5952486
GENERAL INFORMATION:
APPLICANT: BLOKSBERG, Leonard N., HAVUKKALA, Ilkka
APPLICANT: BLOKSBERG, Leonard N., HAVUKKALA, Ilkka
APPLICANT: and GRIERGON, Alastair W.
ITILE OF INVENTION: THE MODIFICATION OF PLANT LIGNIN CONTENT
SUMMER OF SEQUENCES:
NUMBER OF SEQUENCES:
SUMMER OF SEQUENCES:
SUM
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                                                                                      Length 949;
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100.0%; Pred. No. 8.4e-18;
Live 0; Mismatches 0;
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COMPUTER: DAS GENERAL
COMPUTER: TESTSEN COMPATIBLE
OPERATING SYSTEM: DOS
SOFTWARE: FASISED for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/975,316
FILING DATE:
CLASSIFICATION DATA:
APPLICATION NUMBER: 08/713,000
FILING DATE: SEPTEMPER: 11, 1996
ATTOMNEY/AGENT INFORMATION:
NAME: SLEATH, Janet
REGISTRATION NUMBER: 37,007
REFERENCE/DOCKET NUMBER: 11000/1003C1
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                      Query Match 5.0%; Score 68; DB 2; Lk Best Local Similarity 100.0%; Pred. No. 8.4e-18; Matches 68; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    E: Law Offices of Ann W. Speckman
2601 Elliott Avenue, Suite 4185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 949 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Rest Local Similarity 100.
Matches 58; Conservative
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MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         206-269-0563
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US-08-975-315-4
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US-08-713-000-4
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APPLICANT: Havukala, likka
APPLICANT: Havukala, likka
APPLICANT: Havukala, likka
APPLICANT: Havukala, likka
TITLE OF INVENTION: MATERIALS AND METHODS FOR THE
TITLE OF INVENTION: MADIFICATION OF PLANT LIGNIN CONTENT
NUMBER OF SEQUENCES: 15
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
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MEDIUM TYPE: Floppy disk
COMPUTER: THE PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/713,000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ouery Match
5.0%; Score 68; DB 4; Le
Best Local Similarity 100.0%; Pred. No. 8.6e-18;
Matches 68; Conservative 0; Mismatches 0;
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2601 Elliott Avenue, Suite 4185
                                                                                                       CLASSIFICATION:
NAME: Maki, David J.
REGIGSFARTION NUMBER: 31,392
REGIGSFARTION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 210121.427C3
TELECOMMUNICATION INFORMATION:
TELECHONE: (206) 622-4900
TELEFAX: (206) 622-4900
TELEFAX: (206) 622-6031
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 816 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Sleath, Janet
REGISTRATION NUMBER: 37,007
REFERENCE/COCKET NUMBER: 11000.1003
TELECOMMUNICATION:
TELECOMMUNICATION:
                            US/09/030,607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 4, Application US/08713000 Patent No. S850020 GENERAL INFORMATION:
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SEQUENCE CHARACTERISTICS:
LENGTH: 949 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                      25-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               206-259-0553
                         APPLICATION NUMBER:
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; MOLECULE TYPE: CDNA
US-09-030-607-2
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STREET: 2601 El
CITY: Seattle
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                                                             FILING DATE: 2:
CLASSIFICATION:
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TELEFAX: 2
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(212)573-1189
(212)573-1939
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EDNESS: both
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CITY: Pasadena
SIAIE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1359 gtaatcat 1356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             803 GTAATCAT 810
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  TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 14
US-08-992-334-1
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APPLICANT: Carty, Maynard D.
APPLICANT: Carty, Maynard D.
APPLICANT: Carty, Maynard D.
APPLICANT: Kreutter, David K.
TITLE OF INVENTION: TRANSGENIC ANIMAL MODELS FOR TYPE II
TITLE OF INVENTION: DIABETES MELLITUS
NUMBER OF SEQUENCES: 15
CORRESPONDENCE ADDRESS:
ADDRESSEE: Pfizer Inc.
STREET: 235 East 42nd Street, 20th Floor
CITY: New York
STATE: New York
                                                                                                                          GENERAL INC. 9204434

GENERAL INCORMING:
APPLICANT: Blokeberg, Leonard N.
APPLICANT: Havukkala, 11kka
APPLICANT: Grierson. Alastain
TITLE OF INVENTION: Meterials and Methods for the
TITLE OF INVENTION: Medification of Plant Lignin Content;
FILE REPERENCE: 1000,100323
CURRENT APPLICAT: WUNBER: US/09/211,710A
WUNBER OF SEQ ID M25: 15
SOFTWARE: FastsEO for Windows Version 3.0
SEQ ID NO 4
LENGTH: 949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ouery Match 5.0%; Score 68; DB 4; Length 949; Best Local Similarity 100.0%; Pred. No. 8.4e-18; Matches 68; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: unsure
LOCATION: (1)...(949)
OTHER INFORMATION: n at all occurrences indicates unsure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/446,935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ZIP: 10017-5755
COMPUTER READABLE FORM:
WEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPPRATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PC8153
                                                                                         Sequence 4, Application US/09211710A Patent No. 6204434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 5, Application US/08446935; Patent No. 6187991; SENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/ACENT INFORMATION:
NAME: Sheyka, Robert F.
REGISTRATION NUMBER: 31.304
REFERENCE/DOCKET NUMBER: PCE
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE:
CLASSIFICATION: 800
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Pinus radiata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1359 gtaatcat 1366
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                                                                      -09-211-710-4/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
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ZIP: 20007-5109
COMPUTER READABLE FORM:
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                                                                                                                                                            Washington
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                                                                                                                                                                                           USA
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US-08-358-928-52/c
                                                                                                                                 ADDRESSEE:
                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                CITY: W
STATE:
                                                                                                                                              STREET:
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                                                                                                                                 Length 3792
                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Patentin Release #1.0, Version #1.25 (EPO) CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/302,752
                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: THERMOSENSIBLE PLASMID NUMBER OF SEQUENCES: 3
COMPUTER READABLE FORM:
MEDIUM TIPE: Floppy disk
                                                                                                                                    5.0%; Score 68; DB 100.0%; Pred. No. 7e-tive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: FR 9203034
FILING DATE: 13-MAR-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: WO FR/93/00248
FILING DATE: 12-MAR-1993
INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 16
US-08-651-472-62/c
US-08-651-472-52/c
: Schemore 62, Application US/08651472
: Fitent No. 6103244
: CENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                  Sequence 1, Application US/08302752
Patent No. 6025190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE: DNA (genomic)
TOPOLOGY: circular
MOLECULE TYPE: DNA (genomic)
HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 3792 base pairs
TYPE: nucleic acid
                                                                                                                         Ouery Match
Best Local Similarity 10v..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION: 435
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                                                                                                                                                                                                                                                                                           3618 GTAATCAT 3525
                                                                          CLONE: pG+host4
US-08-992-334-1
                                             ANTI-SENSE: YES IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:
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US-08-302-752-1
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APPLICANI: DORNER, Friedrich
APPLICANI: SCHEIFLINGER, Friedrich
APPLICANI: FALKNER, Falko Gunter
APPLICANI: PFLEIDERER, MIChael
ANDER PROPERTION: VIRUSES CONTAINING HUMAN IMMUNOBEFCIENCY VIRUS TYPE 1
ATTLE OF INVENTION: (HIV-1) ANTIGENS
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                          MEDIUM TYPE: Floppy disk
COMPUTER: 1BM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/651,472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ouery Match
Best Local Similarity 100.0%; Pred. No. 6.9e-18;
Matches 68; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: linear
MOLECULE TYPE: Other nucleic acid;
DESCRIPTION: Synthetic DNA oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: 29,768
REFERENCE/DOCKET NUMBER: 30472/166/IMMU
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)672-5309
TELETA: (202)672-5399
                                                                                                                                                                                                                                                             ., Suite 500
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CLASSIFICATION DATA
APPLICATION DATA: 07/914,738
APPLICATION NUMBER: US
FILING DATE: 20-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US
ATTORNEY/AGENT INFORMATION:
NAME: BENI, Stephen A.
REGISTRATION NUMBER: 29,7647,0067
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APPLICANT: SCHEIFEINGER, Friedrich
APPLICANT: FALKNER, Falko Gunter
APPLICANT: PILEIDERER, Michael
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 62, Application US/08358928 Patent No. 6265183 GENERAL INFORMATION:
                                                                                                                                                                                                                                         Foley & Lardner 3000 K Street, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (202)672-5399
TELEX: 904136
INFORMATION FOR SEQ ID NO: 62: SEQUENCE CHARACTERISTICS:
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TYPE: nucleic acid
STRANDEDNESS: single
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TELEX: 904136
INFORMATION FOR SEQ ID NO: 6
SEQUENCE CHARACTERISTICS:
LENGIH: 4277 base pairs
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Best Local Similarity 100.0
Matches 68: Conservative
                                                                                        CORRESPONDENCE ADDRESS:
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US-08-358-928-63/c
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ITILE OF INVENTION: DIRECT MOLECULAR CLONING OF CHIMERIC
TITLE OF INVENTION: VIRUSES CONTAINING HUMAN IMMUNODEFCIENCY VIRUS TYPE 1
TITLE OF INVENTION: (HIV-1) ANTIGENS
NUMBER OF SEQUENCES: 95
CORRESPONDENCE ADDRESS:
ADDRESSEE: Foley & Lardner
STREET: 3000 K Street, N.W., Suite 500
CITY: Washington
STATE: D.C.
COUNTEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: DORNER, Friedrich
APPLICANT: SCHEFFLINGER, Friedrich
APPLICANT: SCHEFFLINGER, Friedrich
APPLICANT: PALKNER, Falko Gunter
TITLE OF INVENTION: DIRECT MOLECULAR CLONING OF CHIMERIC
TITLE OF INVENTION: VIFUSES CONTAINING HUMAN IMMUNODEFCIENCY VIRUS IYPE 1
TITLE OF INVENTION: (H'V'1) ANTIGENS
NUMBER OF SEQUENCES: 95
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                                                                                                                                                                                                                                                                               COUNTRY: USA
ZIP: 20007-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSIEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/358,928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 5.0%; Score 68; DB 4; Le Best Local Similarity 100.0%; Pred. No. 6.9e-18; Matches 68; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE: Other nucleic acid;
DESCRIPTION: Synthetic DNA oligonucleotide
IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: 30472/156/IMMU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION: 435
PHOR APPLICATION DATA:
APPLICATION NUMBER: US 07/914,738
FILING DATE: 20-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/750,080
FILING DATE: 25-AUG-1991
ATTORNEY/AGENT INCEMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)672-5300
TELEFAX: (202)672-5399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEX: 904136
INFORMATION FOR SEQ ID NO: 62:
SEQUENCE CHARACTERISTICS:
LENGTH: 4145 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-08-358-928-52
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Sequence 53, Application US/08358928
Patent No. 6265183
GENERAL INFORMATION:
APPLICANT: SCHEIFLINGER, Friedrich
APPLICANT: SCHEIFLINGER, Friedrich
APPLICANT: PELEIDERER, Michaer
APPLICANT: PFLEIDERER, Michaer
APPLICANT: PFLEIDERER, MICHAECT MOLECULAR CLONING OF CHIMERIC
ITILE OF INVENTION: DIRECT MOLECULAR CLONING OF CHIMERIC
ITILE OF INVENTION: VIRUSES CONTAINING HUMAN IMMUNODEFCIENCY VIRUS TYPE 1
ITILE OF INVENTION: (HIV-1) ANTIGENS
NUMBER OF SEQUENCES: 95
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                      OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PARENTIN Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/651,472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5.0%; Score 58; DB 3; I
100.0%; Pred. No. 6.9e-18;
Live 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                               FILING DATE:

CLASSIFICATION: 435

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/914,738

FILING DATE: 20-JUL-1992

PRIOR APPLICATION NUMBER: US 07/750,080

FILING DATE: 26-AUG-1991

ATTORNEY/AGENT INPORMATION:

NAME: BENT, Stephen A.

REGISTRATION NUMBER: 29,768

REFRENCE/DOCKET NUMBER: 30472/166/IMMU

TELECOMMUNICATION INFORMATION:

TELECOMMUNICATION INFORMATION:

TELEPHONE: (2021672-5399)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: Other nucleic acid:
DESCRIPTION: Synthetic DNA oligonucleotide
IMMEDIAIE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          : Foley & Lardner
3000 K Street, N.W., Suite 500
                                                                           COUNTRY: USA
2.1P: 20007-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: ISOMPO DOSA/MS.PV
ADDRESSEE: Foley & Lardner
STREET: 3000 K Street, N.W.,
CITY: Washington
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APPLICATION NUMBER: US/08/302,752
SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/992,334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5.0%; Score 68; DB 2; Le
100.0%; Pred. No. 6.7e-18;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               THERMOSENSIBLE PLASMID
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**INFORMATION FOR SEQ 1D NO: 2: SEQUENCE CHARACTERISTICS: LENGTH: 5234 base pairs TYPE: nucleic acid STRANDEDNESS: single TOPOLOGY: linear
                                                                                                                      CLASSIFICATION A 435
PRIOR APPLICATION NUMBER:
APPLICATION NUMBER:
FILING DATE: 24-DEC-1994
FILING DATE: 24-DEC-1994
PRIOR APPLICATION NUMBER: PCT/FR93/00248
APPLICATION NUMBER: PCT/FR93/00248
FILING DATE: 12-MAR-1993
PRIOR APPLICATION NUMBER: FR FR92/03034
FILING DATE: 13-MAR-1992
ATTORNEY/AGENT INFORMATION:
NAME: PFOUL, D. BTUCE
REGISTRATION NUMBER: 20958
REGISTRATION NUMBER: C093:31779
TELECOMMUNICATION INFORMATION:
TELECOMMUNI
                                                  ливек: US/08/992,334
17-DEC-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: 1BM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: FR 9203034
FILLING DATE: 13-MAR-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-302-752-2

; Sequence 2. Application US/08302752

: Patent No. 6025190

: GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; MOLECULE TYPE: DNA (genomic) US-08-992-334-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 5.0%
Best Local Similarity 100.0
Matches 68; Conservative
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: V
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: TH
NUMBER OF SEQUENCES: 3
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    circular
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
                                                                                                          FILING DATE:
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Patent No. 5919678
GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Haguin, Emmanuelle
TITLE OF INVENTION: PLESMID
NUMBER OF SEQUENCES: 3
CORRESSONDENCES: 3
CORRESSONDENCE ADDRESSE: Christie Parker 6 Hale, LLP
STREET: 350 West Colorado Boulevard, Suite 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5.0%; Score 68; DB 4; Length 4277;
100.0%; Pred. No. 6.9e-18;
ive 0; Mismatches 0; Indels
                                                                                                                                                                                             OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRAT APPLICATION DATA:
APPLICATION NUMBER: US/08/358,928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE: Other nucleic acid;
DESCRIPTION: Synthetic DNA oligonucleotide
                                                                                                                                                                                                                                                                                                                                CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/914,738
FILING DATE: 20-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/750,080
FILING DATE: 26-AUG-1991
ATTORNEY/AGENT INFORMATION:
NAME: BENT. Stephen A:
REGISTRATION NUMBER: 29,768
REGISTRATION NUMBER: 29,768
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
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MEDIUM TYPE: Floppy disk
COMPUTER: 1BM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                          COMPOURE READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: 1BM PC compatible
OPERATING SYSTEM: PC-POS/MS-DOS
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TELEX: 904136

INFORMATION FOR SEQ ID NO: 63:
SEQUENCE CHARACTERISTICS:
LENGTH: 4277 base pairs

TYPE: nucleic acid
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: United States
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Best Local Similarity 100.0
Matches 68; Conservative
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                                   : D.C.
RY: USA
20007-5109
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SIATE: Califo
COUNTRY: Univ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-992-334-2
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GENERAL INFORMATION:
APPLICANT: DORNER, Friedrich
APPLICANT: DORNER, Friedrich
APPLICANT: SCHEIFLINGER, Friedrich
APPLICANT: FALNER, Falko Gunter
APPLICANT: PFLEIDERER, Michael
TILLE OF INVENTION: VIRUSES CONTAINING HUMAN IMMUNOBEFCIENCY VIRUS TYPE 1
TILLE OF INVENTION: (HIV-1) ANTIGENS
NUMBER OF SEQUENCES: 95
CORRESPONDENCE ADDRESS:
ADDRESSEE: FOLKY LAIDER LAIDER SIREET: 3000 K Street, N.W., Suite 500
CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                       OPERATING SYSTEM: PC_DOS/MS-DOS
SOFIWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/651,472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE: Other nucleic acid; DESCRIPTION: Synthetic DNA oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: 39472/166/IMMU
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/914,738
FILING DATE: 20-0UL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/750,080
FILING DATE: 26-AGG-1991
ATTORNEY/AGENT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768
REGISTRATION NUMBER: 29,768
                                                   Sequence 72, Application US/08651472 Patent No. 6103244
                                                                                                                                                                                                                                                                                                                                   COUNTRY: USA
ZIP: 20007-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEX: (202)672-5399
TELEX: 904136
INFORMATION FOR SEQ ID NO: 72:
SEQUENCE CHARACTERISTICS:
LENGIH: 5532 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE: (202)672-5300
TELEFAX: (202)672-5399
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Best Local Similarity 100.
Matches 68; Conservative
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US-08-651-472-72
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STRANDEDNESS:
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US-08-358-928-72/c
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                                           US-08-651-472-72/C
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                                                              5.0%; Score 68; DB 3; Length 5234;
100.0%; Pred. No. 6.7e-18;
tire 0; Mismatches 0; Indels
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100.0%; Pred. No. 6.7e-18;
ive 0; Mismatches 0; indels
                                                                                                                                                                                                                                                                                                                                                                                       ABPLICANT: Soeller, Walter C.
APPLICANT: Carty, Maynard D.
APPLICANT: Carty, Maynard D.
APPLICANT: Kreutter, David K.
TITLE OF INVENTION: TRANSCENIC ANIMAL MODELS FOR TYPE II
TITLE OF INVENTION: DIABETES MELLITUS
NUMBER OF SEQUENCES: 15
CORRESPONDENCE ADDRESS:
ADDRESSEE: Pfizer Inc.
STREET: 235 East 42nd Street, 20th Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1, Application US/08445935
Patent No. 6187991
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEX: N/A
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 5356 base pairs
TYPE: nucleic acid
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (212)573-1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: circular
MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: Sheyka, Robert F.
REGISTRATION NUMBER: 31,3
; MOLECULE TYPE: DNA (genomic)
US-08-302-752-2
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Pest Local Similarity 100.0
Matches 68; Conservative
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                                                                          Ouery Match
Best Local Similarity 100.0
Matches 68; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: 235 East
CITY: New York
STATE: New York
COUNTRY: U.S.A.
ZIP: 10017-5755
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US-08-446-935-1
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DB 3; Length 5532; 6.7e-18;
                0; Indels
  5.0%; Score 68; DB
100.0%; Pred. No. 6.7
iive 0; Mismatches
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APPLICANI: Maguin, Emmanuelle
111LE OF INVENTION: METHODS FOR USING A TEMPERATURE-SENSITIVE
111LE OF INVENTION: PLASMID
NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 5.0%; Score 68; DB 2; Length 6722; Best Local Similarity 100.0%; Pred. No. 6.5e-18; Matches 68; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Patentin Release #1.0, Version #1.25 (EPO)
                                                                                                                                                                                                                                                                         MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                   ADDRESSEE: Christie Parker & Hale, LLP
STREET: 350 West Colorado Boulevard, Suite 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              THERMOSENSIBLE PLASMID
                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/08/992,334
FILING DATE: 17-DEC-1997
CLASSIFACATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/302,752
FILING DATE: 24-DEC-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/FF93/00248
FILING DATE: 12-MAR-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: FF92/03034
FILING DATE: 13-MAR-1993
ATIORNEY AGENT INFORMATION:
AMAGE: DECASE OF THE PARTICATION NUMBER: FF92/03034
FILING DATE: 13-MAR-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER: 20958
REGISTRATION NUMBER: 20958
RECECOMUNICATION INFORMATION:
TELEPHONE: (626) 795-9900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 26
US-08-302-752-3
: Sequence 3, Application US/08302752
: Patent No. 5025190
: PATENT INFORMATION:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE: DNA (genomic) US-08-992-334-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: (626) 577-8800
INFORMATION FOR SEQ ID NO: 3
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
                                                                                                                                                                                                                United States
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NUMBER OF SEQUENCES: 3
COMPUTER READABLE FORM:
MEDIUM IYPE: Floppy
                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nucleic acid
                                                                                                                                                                     CITY: Pasadena
STATE: California
COUNTRY: United Sta
21P: 91105
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFT WARE:
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                                                                             APPLICANT: DORNER, Friedrich
APPLICANT: SCHEIFLINGER, Friedrich
APPLICANT: SCHEIFLINGER, Friedrich
APPLICANT: FALKNER, Falk Gunter
APPLICANT: FFLEIDERER, Michael
TITLE OF INVENTION: DIRECT MOLECULAR CLONING OF CHIMERIC
TITLE OF INVENTION: VIRUSES CONTAINING HUMAN IMMUNOBERCIENCY VIRUS TYPE 1
TITLE OF INVENTION: (HIV-1) ANTIGENS
NUMBER OF SEQUENCES: 95
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 5532;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/358,928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5.0%; Score 68; DB 4; L6 100.0%; Pred. No. 6.7e-18; tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: Other nucleic acid; DESCRIPTION: Synthetic DNA oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30472/166/IMMU
                                                                                                                                                                                                                                                                                  E: Foley & Lardner
3000 K Street, N.W., Suite 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/914,738
FILING DATE: 20-3UL-1992
FRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/750,080
FILING DATE: 26-AUG-1991
ATTORNEY AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERAIING SYSTEM: PC-DOS/MS-DOS
                      Sequence 72, Application US/08358928
Patent No. 6265183
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Sequence 3, Application US/08992334 ; Sequence 1, Application US/08992334 ; Patent No. 5919678 ; GENERAL INFORMATION: APPLICANT: Gruss, Alexandra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29,768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: 30.
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)672-5300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELERA: (202)672-5399
TELEX: 904136
INPORMATION FOR SEQ ID NO: 72:
SEQUENCE CHARACITERISTICS:
LENGTH: 5532 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               68; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: BENT, Stephen A. REGISTRATION NUMBER: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nucleic acid
EDNESS: single
                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: USA
ZIP: 20007-5109
COMPUTER READABLE FORM:
MEDIUM IYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-358-928-72
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
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CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2159 GTAATCAT 2152
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                  STATE: D.C
                                                                                                                                                                                                                                                                                     ADDRESSEE:
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RESULT: 28
US-08-358-928-67/c
Sequence 67. Application US/08358928
Sequence 67. Application US/08358928
Sequence 67. Application US/08358928
Sequence 67. Application US/08358928
SENERAL INFORMATION:
APPLICANT: SCHEILLINGER, Friedrich
APPLICANT: FALKNER, Falko Gunter
APPLICANT: PFLEIDERER, Michael
APPLICANT: PFLEIDERER, Michael
APPLICANT: PFLEIDERER, MICHAEL
APPLICANT: FALKNER, FALKORICH
APPLICANT
APPLICANT : FALKNER, FALKNER, FALKORICH
APPLICANT : FALK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1299 gccaccgcgggggggctccagcttttgttccctttagtgaggttaattgcgcgttggc 1358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 6811;
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COMPOURE: IBM PC compatible
COPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CUBRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/358,928
FILING DATE:
CLASSIFICATION A 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/914,738
APPLICATION NUMBER: US 07/914,738
FILING DATE: 20-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/750,080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 68; DB 3; L
Pred. No. 6.5e-18;
                                                                                                                                                                                                                                 TOPOLOGY: linear
MOLECULE TYPE: Other nucleic acid:
DESCRIPTION: Synthetic DNA oligonucleotide
IMMEDIATE SOURCE:
CLONE: pN2-gpta ProtS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: BENT, Stephen A. REGISTRATION NUMBER: 29,768
REGISTRATION NUMBER: 29,768
REFERENCE/DOCKET NUMBER: 30472/166/IMMU
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION (202)672-5300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ouery Match
Best Local Similarity 100.0%; Pred. No. 6.5
Matches 68; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           E: Foley & Lardner
3000 K Street, N.W., Suite 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                67:
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TELEFAX: (202)672-5399
TELEX: 904136
INFORMATION FOR SEO ID NO: 67
SEQUENCE CHARACTERISTICS:
LENGTH: 6811 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: 2007-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELETA: (202)672-5399
TELEX: 904136
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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STREET: 3000 K Str
CITY: Washington
STATE: D.C.
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APPLICANT: DORNER, Friedrich
APPLICANT: SCHEIFLINGER, Friedrich
APPLICANT: STAKNER, Falko Gunter
APPLICANT: FALKNER, Falko Gunter
APPLICANT: FRIEDRERR, MICHAEL
TITLE OF INVENTION: URUSES CONTAINING HUMAN IMMUNOBEFCIENCY VIRUS TYPE 1
TITLE OF INVENTION: (HIV-1) ANTIGENS
CORRESPONDENCE: 955
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Patentin Felease #1.0, Version #1.30 CURRENT APPLICATION DAIA: APPLICATION NUMBER: US/08/651,472
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REFERENCE/DOCKET NUMBER: 30472/166/IMMU
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)672-5300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eoley & Lardner
3000 K Street, N.W., Suite 500
                           PILING DATE:

FLING DATE:

CLASSIFICATION: 435

PRIOR APPLICATION DATA:

APPLICATION NUMBER: FR 9203034

FILING DATE: 13-MAR-1992

PRIOR APPLICATION NUMBER: WO FR/93/00248

FILING DATE: 12-MAR-1993

INFORMATION FOR SEQ 1D NO: 3:

SEQUENCE CHARACTERISTICS:

LENGHT: 6722 base pairs

TYPE: nucleic acid

TYPE: nucleic acid

TYPE: sigle
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NAME: BENT, Stephen A. REGISTRATION NUMBER: 29,758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/914,738
FILING DATE: 20-JUL-1992
PRIOR APPLICATION DATA:
                        US/08/302,752
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ZIP: 20007-5109
COMPUTER READABLE FORM:
WEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-651-472-67/c; Sequence 67, Application US/08651472; Patent No. 6103244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE: DNA (genomic) US-08-302-752-3
                        APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: 3000 K St
CITY: Washington
STATE: D.C.
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pP2-gp160MN
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CLONE: pP2-gp160MN
US-08-651-472-69
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STATE:
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APPLICANT: FALKNER, Falko Gunter
APPLICANT: FALKNER, Falko Gunter
APPLICANT: FALKNER, Falko Gunter
TITLE OF INVENTION: UIRUSES CONTAINING HUMAN IMMUNOBEFCIENCY VIRUS TYPE 1
TITLE OF INVENTION: (HIV-1) ANTIGENS
NUMBER OF SEQUENCES: 95
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                        Length 6811;
                                                                                                                                                                                                                                                              0; Indels
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APPLICATION NUMBER: US/08/651,472
                                                                                                                                                                                                                        DB 4; Le
6.5e-18;
                                                                                   MOLECULE TYPE: Other nucleic acid;
DESCRIPTION: Synthetic DNA oligonucleotide;
IMMEDIATE SOURCE:
CLONE: pN2-gpta ProtS
US-08-358-928-67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29,768
FP: 30472/165/IMMU
                                                                                                                                                                                                                      Ouery Match 5.0%; Score 68; DB Best Local Similarity 100.0%; Pred. No. 6.5 Matches 68; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Foley & Lardner
STREET: 3000 K Street, N.W., Suite 500
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CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/914,738
FILING DATE: 20-7UL-1992
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US 07/750,080
FILING DATE: 26-AUG-1991
ATTORNEY/AGENT INFORMATION:
NAME: BENT, SLEPHEN A.
REGISTATION NUMBER: 29,768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 69, Application US/08651472 Patent No. 6103244 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: 30.
TELECOMMUNICATION INFOPMATION:
TELEPHONE: (202)672-5390
TELEFA: (202)672-5399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO: 69: SEQUENCE CHARACTERISTICS: LENGTH: 6926 base pairs TYPE: nucleic acid STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: DORNER, Friedrich
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Floppy disk
LENGTH: 6911 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: USA
ZIP: 20007-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  linear
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US-08-651-472-69/c
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APPLICANT: SCHEIFLINGER, Friedrich
APPLICANT: SCHEIFLINGER, Friedrich
APPLICANT: SCHEIFLINGER, Friedrich
APPLICANT: FALKNER, Falk Günter
APPLICANT: PFLEIDERER, Michael
APPLICANT: PALVENTION: VIRUSES
CORRESPONDENCE ADRESS:
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                                                                                                                                                                            Length 6926;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/358,928
                                                                                                                                                                            5.0%; Score 68; DB 3; L
100.0%; Pred. No. 6.5e-18;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: Other nucleic acid: DESCRIPTION: Synthetic DNA oligonucleotide IMMEDIATE SOURCE:
MOLECULE TYPE: Other nucleic acid;
DESCRIPTION: Synthetic DNA oligonucleotide
IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30472/166/IMMU
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STREET: 3000 K Street, N.W., Suite 500
CITY: Washington
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CLASSIFICATION: 435
PRIOR APPLICATION 1435
PRIOR APPLICATION DATE:
APPLICATION NUMBER: US 07/914,738
FILING DATE: 20-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/750,080
FILING DATE: 26-AUG-1991
ATTORNEY/AGENT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768
REGISTRATION NUMBER: 29,768
REGISTRATION NUMBER: 29,768
RECENENCE/OCKET NUMBER: 30472/166/
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION 1002 69:
TELEX: 904136
INFORMATION FOR SEQ 1D NO: 69:
SEQUENCE CHARACTERISTICS:
LENGTH: 6926 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 69, Application US/08358928 Patent No. 6265183 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: USA
ZIP: 20007-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                  Ouery Match 5.0%
Best Local Similarity 100.0
Matches 68; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: nucleic acid
STRANDEDNESS: single
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APPLICANT: Poblimann, Rainer
APPLICANT: Poblimann, Rainer
APPLICANT: Stelher, Sabine
APPLICANT: Stelher, Sabine
APPLICANT: Wendland, Jurgen
APPLICANT: Wendland, Jurgen
APPLICANT: Wendland, Jurgen
APPLICANT: Rechtle, Philipp
APPLICANT: Rebischung, Corinne
Title OF INVENTION: AND USES THEREOF
NUMBER OF SEQUENCES: 1152
CORRESPONDENCE ADDRESS:
ADDRESSEE: No. 6239264artis Corporation
STREET: 3054 Cornwallis Road
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 698;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 4.5%; Score 62; DB 4; Length 698 Best Local Similarity 100.0%; Pred. No. 1.8e-15; Matches 62; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: Datentin PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/998.416
FILING DATE: 24-DEC-1997
CLASSIFICATION DATA:
APPLICATION NUMBER: CH 0016/97
FILING DATE: 31-DEC-1996
ATTORNEY/AGENT INFORMATION:
NAME: Meigs, J. Timothy
ESSISTRATION NUMBER: 38,241
ESSISTRATION NUMBER: 38,241
                                                                                                                                            Sequence 54, Application US/08998416; Patent No. 6239264; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Research Triangle Park
No. 6239264th Carolina
XY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION:
TELEPHONE: 919-541-8587
TELEFAX: 919-541-8689
INFORMATION FOR SEQ ID NO: 54:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 698 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ZIP: 27709
COMPUTER READABLE FORM:
MEDIUM IYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: PAG1015RP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE IYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 33
US-08-998-415-135/c
                                                                                                        RESULT 32
US-08-998-416-54/c
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ag 62
                                            257 AG 258
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STATE:
    61
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                                          qq
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TITLE OF INVENTION: TRANSCENIC PLANTS EXPRESSING ACETYL COA CARBOXYLASE GE
TUMBER OF SEQUENCES: 25
CORRESPONDENCE ADDRESS:
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                                                                                                                                                    1299 gccaccgcggtggagctccagcttttgttccctttagtgagggttaattgcgcgcttggc 1358
                                                                                                                                                                           2219 GCCACCGCGGGGGGGGCCTCCAGCTTTTGTTCCCTTTAGTGAGGGTTAATTGCGCGCGTTGGC 2150
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                                                              Query Match 5.0%; Score 68; DB 4; Lenath 6925; Best Local Similarity 100.0%; Pred. No. 6.5e-18; Matches 68; Conservative 0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE: Schwegman, Lundberg, Woessner & Kluth, P. A. STREET: P. O. Box 2938 CITY: Minneapolis STAIE: Mn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Diskette
COMPUTER: Diskette
COMPUTER: DISKette
COMPUTER: DISKette
COMPUTER: DEACONDALIble
COMPUTER: DEACONDALIble
COMPUTER: DATE: DATE:
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/930, 285
FILING DATE: 13-APP-1998
CLASSIFICATION: 800
PRIOR PAPLICATION DATA:
APPLICATION NUMBER: PCT/US96/04625
FILING DATE: 04-APR-1996
ATTORNEY ACENT INFORMATION:
NAME: EMDITECTON Janet E.
REGISTRATION NUMBER: 39-665
TELECOMMUNICATION NUMBER: 39-665
TELECOMMUNICATION NUMBER: 500.318US4
TELECOMMUNICATION:
TELEFHONE: 612-339-0331
                                                                                                                                                                                                                                                                                                                                                                                     Sequence 17, Application US/08930285
Patent No. 6222099
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: linear
MOLECULE TYPE: Genomic DNA
HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 558 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
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Best Local Similarity
Matches 62; Conserv
                                                                                                                                                                                                                                         1359 gtaatcat 1365
                                                                                                                                                                                                                                                                             2159 GTAATCAT 2152
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; ORIGINAL SOURCE:
US-08-930-285-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: US
ZIP: 55402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                             RESULT 31
US-08-930-285-17
      US-08-358-928-69
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ADDRESSEE: Barnes & Thornburg
STREET: 11 South Meridian
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MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE: (317) 231-7743
TELEFAX: (317) 231-7433
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 5534 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 4.5%
Best Local Similarity 100.(
Matches 62; Conservative
                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                           COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                 Indianapolis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IYPE: nucleic acid
      NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PUMIGIT
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                                                                                                                                                                                                 USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         46204
                                                                                                                                                                                                                            ZIP: 46204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2557 AG 2656
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US-09-123-644-3/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 ag. €3
                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLONE:
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                                                                                                                                                                                          APPLICANT: Mohr, Christine
APPLICANT: Wendland, Jurgen
APPLICANT: Rechtle, Philipp
APPLICANT: Rebischung, Corinne
TITLE OF INVENTION: GENOMIC DNA SEQUENCES OF ASHEYA GOSSYPII
TITLE OF INVENTION: AND USES THEREOF
WUMBER OF SEQUENCES: 1152
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SENERAL INFORMATION:
APPLICANT: Bennett, Malcolm
APPLICANT: May, Sena
APPLICANT: Ransy, Nichola
TITLE OF INVENTION: Control of Genes in Transgenic Plants
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; DB 4; Le...
n. 1.8e-15; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: LBM PC compatible
COMPUTER: BLM PC compatible
COMPUTER: PatentIn Release #1.0, Version #1.30
CORRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/998,416
FILING DATE: 24-DEC-1997
CLASSIFICATION 435
PRIOR APPLICATION ADAR:
APPLICATION NUMBER: CH 0016/97
FILING DATE: 31-DEC-1996
ATTONEY/AGENT INFORMATION:
ANALY AND AND ADARD AD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PF/5-30306/A/CGC1976
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                No. 6239264artis Corporation
Sequence 135, Application US/08998416
Fatent No. 6239264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     : Sequence 3, Application US/08452267 ; Fatent No. 5801027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: 3054 Cornwallis Road CITY: Research Triangle Park STATE: No. 6239264th Carolina COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: Meigs, J. Timothy
REGISTRATION NUMBER: 38,241
REFERENCE/DOCKET NUMBER: PF,
TELECOMMUNICATION INFORMATION:
TELEPHONE: 919-541-8587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO: 135: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCULOGY: linear
MOLECULE TYPE: DNA (genomic)
ORIGINAL SOURCE:
                                                                                                     APPLICANT: Philippsen, Peter
APPLICANT: Poblmann, Rainer
APPLICANT: Steiner, Sabine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cuery Match
Pest Local Similarity 100.0
varches 62; Conservative
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TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        919-541-8689
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US-08-998-416-135
                                                                       "ENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-08-452-267-3/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         186 AG 185
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 ag 62
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Sequence 3, Application US/09123644

Patent No. 5127606

GENERAL INFORMATION

APPLICANT: May, Sean

APPLICANT: Ramasay, Nicola

ITLLE OF INVENTION: Method of Using Transactivation Proteins to

NUMBER OF SEQUENCES: 9

CORRESPONDENCE ADDRESS:

ADDRESSE: Barnes & Thornburg

SIREET: 11 South Meridian

CITY: Indianapolis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4.5%; Score 62; DB 1; Length 5534;
100.0%; Pred. No. 1.4e-15;
Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Patentin Release #1.0, Version #1.25
                                                                 SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/452,267 FILING DATE: 26-MAY-1995 CLASSIFICATION: 435
                                                                                                                                                                                          ATTORNEY/ACENT INFORMATION:
NAME: Breen, John P.
REGISTRATION NUMBER: 38,833
REFERENCE/DOCKET NUMBER: 6653-25744
IELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Kin, Joseph L
APPLICANT: Kin, Joseph L
APPLICANT: Caron, Paul R
APPLICANT: Caron, Paul R
APPLICANT: Lin, Chao
TITLE OF INVENTION: CRYSTAL SIRUCTURE OF THE HCV NS3 HELICASE DOMAIN
FILE REFERENCE: Sequence listing for VPI/97-101
FILE REFERENCE: Sequence listing for VPI/97-101
CURRENT ILING DATE: 1998-08-03
CURRENT FILING DATE: 1997-08-13
NUMBER OF SEQ ID NOS: 4
SEQ ID NO 3
SEQ ID NO 3
LEMCTH: 8157
TYPE: NN:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION: Description of Artificial Sequence: Genetically OTHER INFORMATION: engineered plasmid containing full-length HCV NS3 OTHER INFORMATION: coding sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 8157;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
4.5%; Score 62; DB 4; Length 815
Best Local Similarity 100.0%; Pred. No. 1.3e-15;
Matches 62 conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Diskette, 3+ inch, 1.4 Mb storage
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US-08-096-947-2/C
US-08-096-947-2/C
Sequence 2, Application US/08096947
Sequence 2, Application US/08096947
SEREAL INFORMATION:
APPLICANT: Eric J. Mathur
APPLICANT: Edward J. Marsh
TITLE OF INVENTION: Purified Thermostable
TITLE OF INVENTION: Pyrococcus Furiosus DNA
TITLE OF INVENTION: Ligase
                                                                                                                                                                                        US-09-128-314-3/c
; Sequence 3, Application US/09128314
; Patent No. 6183121
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IBM PC Compatible
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ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM IYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
ADDRESSEE: Limbach &
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2338 AG 2337
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                                                                                            1940 AG 1839
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                                                                 61 ag 62
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Vertex Pharmaceuticals Inc.
TITLE OF INVENTION: CRYSTAL STRUCTURE OF THE HCV NS3 HELICASE DOMAIN
FILE REFERENCE: Sequence listing for VPI/97-101
Patent No. 6183121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            : OTHER INFORMATION: Description of Artificial Sequence: Genetically: OTHER INFORMATION: engineered plasmid containing helicase domain of: OTHER INFORMATION: HCV NS3
US-09-128-314-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4.5%; Score 62; DB 4; Lenuth 7659;
199.0%; Pred. No. 1.3e-15;
ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 5534;
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100.0%; Pred. No. 1.4e-15;
tive 0; Mismatches 0;
                                                                                     ATTORNEY AGENT INFORMATION:
NAME: Been, John P.
REGISTRATION NUMBER: 38,833
REFRENCE/DOCKET NUMBER: 6653-60788
TELECOMMUNICATION INFORMATION:
TELECHONE: (317) 231-7745
INFORMATION FOR ESD ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 5534 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRENT APPLICATION NUMBER: US/09/128,314
CURRENT FILING DATE: 1998-08-03
EARLIER APPLICATION NUMBER: 60/055,772
EARLIER FILING DATE: 1997-08-13
NUMBER OF SEQ ID NOS: 4
SOFTWARE: Patentin Ver. 2.0
      CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/123,644
FILING DATE: 28-JUL-1998
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 4, Application US/09128314
; Patent No. 6183121
; GENERAL INFORMATION:
   APPLICANT: Kim, Jospeh L
; APPLICANT: Morgenstern, Kurt A
; APPLICANT: Caron, Paul R
; APPLICANT: Lin, Chao
                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: CITCULA.
MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA ORGANISM: Artificial Sequence
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Best Local Similarity 199.0
Matches 62; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 100.0
Matches 62; Conservative
                                                                                                                                                                                                                                                                                               TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                           ; CLONE: PUMIGIT
US-09-123-644-3
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US-09-128-314-4/c
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LENGIH: 7659
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Query Match
4.5%; Score 61; DB 1; Length 2363;
Best Local Similarity 100.0%; Pred. No. 3.7e-15;
Matches 61; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Eric J. Mathur
APPLICANT: Eric J. Mathur
APPLICANT: Edward J. Marsh
APPLICANT: Warren E. Schoettlin
TITLE OF INVENTION: Purified Thermostable Pyrococcus
TITLE OF INVENTION: Furiosus DNA Ligase
NUMBER OF SEQUENCES: 17
CORRESPONDENCE ADDRESS:
ADDRESSEE: Pennie & Edmonds
STREE: 273 Sand Hill Road
CITY: Menlo Park
STATE: California
                                                                                                                                                                                                                                                                                                                    ORGANISM: PYCOCOCCUS FULIOSUS
INDIVIDUAL ISOLATE: DSM #3638
CELL TYPE: unicellular organism
IMMEDIATE SOURCE:
LIBRARY: PTO MBPYICOCOCCUS FULIOSUS Genomic DNA
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                                                                                     8142-013
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PRICE APPLICATION DATA:
APPLICATION NUMBER: 07/919,140
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             CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Albert P. Halluin.
REGISTRATION NUMBER: 25.27
REGISTRATION NUMBER: 8142:
IELECOMUNICATION INFORMATION:
TELECHONE: 415-854-3660
TELEFAX: 415-854-3660
TELEFAX: 415-854-3660
TELEFAX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 2363 base pairs
TYPE: NUCLEIC acid
STRANDENESS: double
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy Disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-
July 23, 1992
N: 435
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MOLECULE TYPE: genomic DNA
ANTI-SENSE: no
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION NAME: Albert P. Halluin
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US-07-919-140B-2
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4.5%; Score 61; DB 1; Length 2363;
Best Local Similarity 100.0%; Pred. No. 3.7e-15;
Matches 61; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
APPLICANT: Eric J. Mathur
APPLICANT: Edward J. Marsh
APPLICANT: Warren E. Schoettlin
TITLE OF INVENTION: Purified Thermostable Pyrococcus
TITLE OF INVENTION: Furiosus DNA Ligase
NUMBER OF SEQUENCES: 17
CORRESPONDENCE ADDRESS:
   Pyroccocus furiosus Genomic DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US/07/919,140B
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MEDIUM IYPE: Floppy Disk
MEDPUTER: 1BM PC Compatible
OPERAING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WordPerfect 5.0
CURRENT APPLICATION DAIR:
APPLICATION NUMBER: US/07/919.1401
                                                                                                                                                                                                                                                                                                                                                                                                                                         UNGANISM: Pyrococcus furiosus
INDIVIDUAL ISOLATE: DSM #3638
CELL TYPE: unicellular organism
LIBRADY
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; Sequence 2, Application US/07919140B
; Patent No. 5700672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: Pennie & Edmonds
STREET: 2730 Sand Hill Road
CITY: Menlo Park
STATE: California
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE: genomic DNA ANTI-SENSE: no ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: linear
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APPLICANT: Michel, Marie-Louise
APPLICANT: Manche, Maryline
TITLE OF INVENTION: Nuclectide Vector, Composition
TITLE OF INVENTION: Containing Such Vector, and Vaccine for Immunization
TITLE OF INVENTION: Against Hepatitis
NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 2363;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Finnegan, Henderson, Farabow, Garrett & ADDRESSEE: Dunner STREET: 1300 I Street, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk COMPUTER: IBM PC Compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                     4.5%; Score 61; DB 5; Le Similarity 100.0%; Pred. No. 3.7e-15; S1; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                   Pyroccocus Furiosus Genomic DNA
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FILING DATE: 12-FEB-1997
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/706,337
FILING DATE: 30-A0G-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/633,821
FILING DATE: 22-APR-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: FR 94/00483
FILING DATE: 27-APR-1994
ATIORERY AGENT INFORMATION:
                                                                                                                                                                                                                             UNGANISM: Pyrococcus Furiosus
INDIVIDUAL ISOLATE: DSM #3638
CELL TYPE: unicellular organism
IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1, Application US/08799569
Patent No. 6133244
GENERAL INFORMATION:
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REGISTRATION NUMBER: 25,146
icLEFAX: (415) 433-8716
INFORMATION FOR SEO ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 2363 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZIP: 20005-3310
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
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PCT-US93-05939-2
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Matches 61:
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                                                                                                                                                                                                                                                                                                                                          LIBRARY:
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US-08-799-569-1
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4.5%: Score 61; DB 4; Length 2363;
Best Local Similarity 100.0%; Pred. No. 3.7e-15;
Matches 61; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READBLE FORM:
MEDIUM TYPE: Diskette, 3+ inch, 1.4 Mb storage
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WordPerfect 5.0
CURRENT APPLICATION DATA:
APPLICATION DATA:
FILLING DATE: 19930722
                                                                                                                                                                                                                                                                                                                                               ORGANISM: Pyrococcus Furiosus
INDIVIDUAL ISOLATE: DSM #3538
CELL TYPE: unicellular organism
IMMEDIATE SOURCE:
LIBRARY: PTO.MBPyrococcus Furiosus Genomic DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Eric J. Mathur
APPLICANT: Eric J. Mathur
APPLICANT: Edward J. Marsh
APPLICANT: Warren E. Schoettlin
ITILE OF INVENTION: Purified Thermostable
ITILE OF INVENTION: Pyrococcus Furiosus DNA
ITILE OF INVENTION: Ligase
NUMBER OF SEQUENCES: ADDRESSE: Limbach & Limbach
STREET: 2001 Ferry Building
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: 25,227
REFERENCE/DOCKET NUMBER: STRG 20081 USA TELECOMMUNICATION INFORMATION: TELEPHONE: (415) 433-4150
                          REGISTRATION NUMBER: 25.27
REFERENCE/DOCKET NUMBER: 8142-013
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-854-3560
TELEFAX: 6614 PENNIE
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 2363 base pairs
TYPE: nucleic acid
STRANDENESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PCT-US93-06939-2/c
; Sequence 2, Application PC/TUS9306939
; GENERAL INFORMATION:
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APPLICATION NUMBER: 07/919,1,
FILING DATE: July 23, 1992
ATTORNEY/AGENT INFORMATION:
NAME: Albert P. Halluin
REGISTRATION NUMBER: 25,227
                                                                                                                                                                                                                                                                                   genomic DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: San Francisco
STATE: CA
                                                                                                                                                                                                                                                                 linear
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                                                                                                                                                                                                                                                                   TOPOLOGY: line:
MOLECULE TYPE: gr
ANTI-SENSE: no
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   USA
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US-08-916-232-2
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Sequence 9, Application US/08703808
Patent No. 5736383
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US-08-703-808-9
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IIILE OF INVENTION: GENETIC ENGINEERING OF PICHIA METHANOLICA
NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
ADDRESSEE: ZymoGenetics, Inc.
STREET: 1201 Eastlake Avenue East
CITY: Seattle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 5518;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3.7%; Score 51; DB 1; Length 329; 100.0%; Pred. No. 3.4e-11; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Floppy disk
COMPUTER: 1BM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/703,809
                                                                                                                                                                                                                                     4.0%; Score 55; DB 3; L. 100.0%; Pred. No. 6.8e-13; tive 0; Mismatches 0;
REFERENCE/DOCKET NUMBER: 03495.0128-01000
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 408-4000
INFORMATION FOR SEO ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 5518 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 9, Application US/08703809 Patent No. 5716808 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Parker, Gary E
REGISTRATION NUMBER: 31-648
REFERENCE/DOCKET NUMBER: 96
TELECOMMUNICATION INFORMATION:
TELEPHONE: 206-442-6673
                                                                                                                                                        : TOPOLOGY: linear
: MOLECULE TYPE: DNA (genomic)
US-08-799-569-1
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TELEFAX: 206-442-6678
INFORMATION FOR SEQ ID NO: 9:
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ATTORNEY/AGENT INFORMATION:
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nucleic acid
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy o
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US-08-703-809-9
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RESULT

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THIE OF INVENTION: PREPARATION:

THIE OF INVENTION: PREPARATION OF PICHIA METHANOLICA AUXOTROPHIC
THIE OF INVENTION: PREPARATION OF PICHIA METHANOLICA AUXOTROPHIC
THIE OF INVENTION: PREPARATION OF PICHIA METHANOLICA AUXOTROPHIC
THIE OF INVENTION: WINTER:

CORRESPONDED TO THE PROPAGE OF THE
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Search completed: April 30, 2002, 10:38:12 Job time: 9961 sec

Run

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Contact: Robert Strausberg, Ph.D.

Email: cgapbs-ramail.nih.gov

Email: cgapbs-ramail.nih.gov

Email: cgapbs-ramail.nih.gov

Email: cgapbs-ramail.nih.gov

Email: cgapbs-ramail.nih.gov

Emmert-Buck, M.D., Ph.D.

CDNA Library Preparation: M. Bento Soares, Ph.D.

CDNA Library Prayed by: Greg Lennon, Ph.D.

DNA Sequencing by: Washington University Genome Sequencing Center

Clone distribution: NCI-CGAP clone distribution information can be

found through the I.M.A.G.E. Consortium/LLNL at:

www-bio.llnl.gov/bbrp/Amage/Amage.html

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High quality sequence stop: 454.
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AUG6898 HOW05988
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B1118265 ARILA3 PO
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                        B1784504 UNIAGEORO
AUG6910 AUG6910 AUG69112
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AUG6910 AUG69190
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AU177453 AU177453
BE414300 SCU008.C0
BE421927 HWM016cF.
                                                                                           AL285149 Tetraodon
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AW687437 NF009F01R
AW954068 ESI354138
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BE421895 HWM015cB.
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Eukaryota: Metazoa; Chordata; Craniata: Vertebrata: Euteleostcmi:
Mammalia: Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 556)
NCI-GAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
Unpublished (1997)
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AV746034 AV746034
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A1927004
A1927004.1 GI:5662968
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 ACCESSION
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KEYWORDS
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DEFINITION
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AUTHORS
TITLE
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BE872674 601451222
A1065849 0x47112.s
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2721.794 Million cell updates/sec
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           GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd
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Maximum Match 100%
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BM384329
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                                                                 Tel: -55-11-2704922
Tel: -55-11-2704922
Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL
(http://www.ludwig.org.br/scripts/gethtml2.pl?tl=PM4.tt2=PM4-BT0548-171299-001-f08.t3=1999-12-17.t4=1)
Seq primer: puc IB forward
High quality sequence stop: 575.
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar, 01509-010, Sao Paulo-SP,
Brazil
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98.4%; Pred. No. 6.9e-77;
iive 0; Mismatches 6;
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mRNA sequence.
    with a modified polylinker: 1st strand cDNA was prepared from normal prostate bulk tissue, and was then primed with a Not I - oligo(dI) primer. Double-stranded cDNA was ligated to Eco RI adaptors (Pharmacia), digested with Not I and cloned into the Not I and Eco RI sites of the modified pT7T3 vector. Library is normalized, and was constructed by Bento Scares and M. Fatima Bonaldo. **
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I (Dases I to 57% - Udwig.org.br/ORESIES.

IHCFP http://www.ludwig.org.br/ORESIES.

IHE FAPESP/LICR Human Cancer Genome Project
Combalished (1999).

Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
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Pred. No. 8.6e-83;
0; Mismatches 3;
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// organism "Homo sapiens"

/db_xref="taxon:9606"

/clone="IMAGE:3855125"

/clone="lib="NIH_MGC_65"

/clone="lib="NIH_MGC_65"

/lab_host="DH10B (phage-resistant)"

/nab_host="Organ: colon: Vector: pcmv-SporT6; Site_1: NotI;

/note="Organ: colon vector: p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BE872574 905 bp mRNA linear EST 20-OCT-2000 601451222F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3855125 5',
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Contact: Robert Strausberg, Ph.D. Email: capabs-familiningov
Tissue Procurement: ATC
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Prayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
plate: LLAM9581 row: 1 column: 06
High quality sequence stop: 582.
1. 905
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Eukaryoda; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Pred. No. 1.9e-56;
2; Mismatches 93; Indels 17; Gaps
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//dev_stage="Adults".
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This sequence was derived from the FAPESP/LICR Human Cancor Genome
This sequence was derived from the FAPESP/LICR Human Cancor Genome
This sequence was derived from the following URL
(http://www.ludwig.org.br/scripts/gethtml2.pl?tl=pH4&t2=PM4-BTO548-
171299-001-a04&t3=1999-12-17&t4=1)
Seq primer: puc 18 forward
High quality sequence start: 13
High quality sequence start: 3
High quality sequence stop: 549.
                                                                                                                                  AW174082 550 bp mRNA linear EST 01.FEB-2000 PM4-BT0548-171299-001-a04 BT0548 Homo sapiens CDNA, mRNA sequence.
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Hordphttp://www.ludwig.org.br/ORESTES.
The FAPESP/LICR: Human Cancer Genome Project
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua prof. Antonio Prudente 109, 4 andar, 01509-010, Sao Faulo-SP.
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/db_xref="taxon:9606"
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Fax: +55-11-2707001
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A1867547.1 G1:5540656
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Mammalia: Eutheria: Primates: Catarrhini: Hominidae: Homo.

Mational Cancer Institute, Cancer Genome Anatomy Project (CGAP).

NOT-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.

NOT-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.

Iumor Gene Index:

Unpublished (1957)

Contact: Pobert Strausberg, Ph.D.

Email: cgapbs-r*mail.nih.gov

This clone is available royalty-free through LLML: contact the Information.

Insert Length: 1869 Std Error: 0.00

Seq primer: -40ml3 fwd ET from Amersham

High quality sequence stop: 398.

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1st strand
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/db_xref*"taxon:9605"
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AI085849.1 GI:3424272
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364 bp mRNA linear EST 17-DEC-1999 wb78c04.x1 W71_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2311782 3'. A1867547
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                                             Score 388.8; DB 9; Length 409; Pred. No. 1.6e-55; 0; Mismatches 2; Indels 0:
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BM391501
UI-R-DYO-ckr-e-06-0-UI.sl UI-R-DYO Rattus norvegicus CDNA clone
UI-R-DYO-ckr-e-06-0-UI 3', mRNA sequence.
                                                                 Submitted (O2-Aug-2001) Asao Fujiyama, The Institute of Physical Submitted (D2-Aug-2001), Genomic Sciences Center (GSC): and Chemical Research (RIKEN), Genomic Sciences Center (GSC): 1-7-22 Suehiro-chou, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:chimpbesqsc.riken.go.jp, URL:http://hgp.gsc.riken.go.jp/, Tel:81-45-503-9111, Fax:81-45-503-9170)
Tel:81-45-503-9111, Fax:81-45-503-9170)
Tel:91-45-503-9111, Fax:81-45-503-9170)
Tel:91-45-503-9111, Fax:81-45-503-9170)
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Rodentia; Sciurognathi; Muridae; Murinae;
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Bonaldo,M.F., Lennon,G. and Soares,M.B.
Normalization and subtraction: two approaches to facilitate gene
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 746;
                                                                                                                                                                                                                                                                                                                                                                                             /cell_type="lymphoblast"
/clone_lib="PTB Chimpanzee Male BAC Library"
173 c 135 g 224 t l others
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Pred. No. 7.4e-30;
0; Mismatches 6;
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/clone="PTB-003H07.F"
/sex="male"
                                                                                                                                                                                                                                                                                          Location/Qualifiers
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BM391501.1 GI:18191554
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Rattus norvegicus
Eukaryota: Metazoa: Cl
Mamma ia; Eutheria; R
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al Similarity 97.5%;
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2 (bases 1 to 746)
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R.Site 2 :
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BM391501
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Ban troglodytes male lymphoblast DNA, clone_lib:PIB Chimpanzee Male
BAC Library clone:PIB-003H07.F.

Pan troglodytes
                                                                                                                                                                          /note="Organ: prostate; Vector: p1713D-Pac (Pharmacia)
with a modified polylinker: plasmid DNA from the
normalized library NCI_CGAP_PT2 was prepared, and so
circles were made in vitro. Following HAP purification,
tris DNA was used as tracer in a subtraction; hybridization
reaction. The driver was PCR-amplified cDNAs from a pool
of 5,000 clones made from the same library (clonelDs
98550B-986759, 1101192-1101959, and 1217928-1220615).
Subtraction by Bento Scares and M. Fatima Bonaldo.
55 cg 122 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGUJU921 746 bp DNA linear GSS 01-NOV-200
Pan troglodytes DNA, clone: PTB-003H07.F. genomic survey sequence.
AG030921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vartebrata; Euteleostomi;
Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Pan.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          tagttaaacaagcagaatagcactaggcagaataaaaaattgcacagacgtatgcaattt 384
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fujiyama, A., Hattori, M., Toyoda, A., Taylor, T.D., Yada, T., Totoki, Y., Watanabe, H. and Sakaki, Y.
BAC end sequences of Library PTB
                                                                                                                                                                                                                                                                                                                                                                                                                       ;;
                                                                                                                                                                                                                                                                                                                                                                                       Length 364;
                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                       Score 352; DB 9;
Pred. No. 2.4e-49;
                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                 /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:2311782"
/clone_lib="NCI_CGAP_Pr28"
                                   Location/Qualifiers
     primer: -40UP from Gibco
                                                                                                                                               /dev_stage="adult"
/lab_host="DH10B"
                     High quality sequence stop:
                                                                                                                                                                                                                                                                                                                                                                                                                        ;
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                                                                                                                                                                                                                                                                                                                                                                                        25.7%;
                                                                                                                                   /sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                        363;
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AG030921
LOCUS
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EST 17-JAN-2002

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Email: msoarces@blue.weeq.uiowa.edu
The sequence contained an oliqo-dT track that was present in the
oliqooucleofide that was used to prime the synthesis of first
coliqoucleofide that was used to prime the synthesis of first
strand cDNA and therefore this may represent a bonafide poly A
tail. The sequence tag present in the cDNA between the NoII site
and the oliqo-dI track served to verify it as a clone from the
non-normalized cartilage library cDNA Library Preparation: M.B.
Soares Lab Clone distribution: clones will be available through
Research Genetics (www.resgen.com) The following repetitive
elements were found in this cDNA sequence: 538-616, >Bl_MM*SINE/Alu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /dev_stage="dult"
/lab_host="DH10B" (Life Technologies)" in a modified
/note="vector: pT13D-Pac (Pharmacia) with a modified
polylinker, Site_1: Not 1: Site_2: Eco RI: UI-R-DYO is a
non-normalized Rat cartilage library (RO) constructed in
pT3T PAC vector according to the procedure described by
Bonaldo, Lennon & Soares (Genome Research Genome 6:
791-806, 1996). The oligonucleotide used to prime first
strand synthesis contained the sequence tag CTAATGGACG
between the Not I cloning site and dT18 stretch. The Rat
cartilage tissue was provided by Dr Jeff Stevens at the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota: Metazoa; Chordata; Craniata; Vertebrata: Euteleostomi:
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
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Bonaldo.M.F., Lennon,G. and Soares,M.B.
Normalization and subtraction: two approaches to facilitate gene
                                                                                                                                                                                                                                                                                                                                                                                     636 bp mRNA. linear EST 17-JAN-2
UI-R-DYO-ckr-1-04-0-UI.S1 UI-R-DYO Rattus norvegicus cDNA clone
UI-R-DYO-ckr-1-04-0-UI 3', mRNA sequence.
BM384329
BM384329.1 GI:18184382
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                451 Eckstein Medical Research Building Iowa City, IA 52242, USA Tel: 319 335 8250
Fax: 319 335 9565
295 CACACATGCGITACTCTGAAATAGTATTATTTGAGTCCAACTTTCAGCTTCTAGTGACAA 355
                                                                                                                                                                          taaaaaaggaaatgtaagtccactctcaatctcataaaaggtgaggtaaggatgctaaa
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University of lowa
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/db_xref="taxon:10116"
/clone="U1-R-DYO-Ckr:1-04-0-U1"
/clone_lib="U1-R-DYO"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism-"Rattus norvegicus"
                                                                                                                                                                                                                                                                                 551 gcaaaataaaatgtaqqttctttttttttttt 582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genome Rês. 6 (9), 791-806 (1996)
97044477
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TAG_LIB=U1-R-DY0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Seg primer: M13 Forward POLYA=Yes.
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Rattus norv
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                                                                                                         University of lowa 451 control of lowa city, IA 52242, USA 161 Eckstein Medical Research Building lowa city, IA 52242, USA 161: 319 315 8250

Fax: 319 315 8250

Fax: 319 315 9555

Email: msoares@blue.weeg.uiowa.edu
The sequence contrained an oligo-di track that was present in the oligonucleotide that was used to prime the synthesis of first strand cDNA and therefore this may represent a bonafide poly A tail. The sequence tag present in the cDNA between the Noti site and the cligo-di track served to verify it as a clone from the non-normalized cartilage library cDNA Library Preparation: M.B. Soares Lab Clone distribution: clones will be available through Research Genetics (*ww.resgen.com) The following repetitive elements were found in this cDNA sequence: 539-f17, >81_MM*SINE/Alu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Rattus norvegicus"
/strain="Sprague-Dawley"
/strain="Sprague-Dawley"
/dbxref="taxon:10116"
/clone="ilb="Ur-R-DY0"
/clone="ilb="Ur-R-DY0"
/dev_stage="adult"
/lab_host="DH10B (Life Technologies)"
/lab_host="DH10B (Life Technologies)"
/note="Vector: PT773D-Pac (Pharmacia) with a modified polylinker; Site_1: Not I; Site_2: Eco_R: Ur-R-DY0 is a non-normalized Rat cartilage library (EC) constructed in p7377 PAc vector according to the procedure described by Bonaldo, Lennon & Soares (Genome Research Genome 6: 791-806, 1996). The oligonucleotide used to prime first strand synthesis contained the sequence tag orDATGGACG between the Not I cloning site and d112 stretch. The Rat cartilage tissue was provided by Dr Jeff Stevens at the
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 72 ttttttttttttttttattgatcagaattcaggctttattattgagcaatgaaacagct 131
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Pred. No. 8.5e-12;
0; Mismatches 186;
                                                                                      Program for Rat Gene Discovery and Mapping
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   215
             Res. 5 (9), 791-806 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            University of Iowa.
TAG_LIB=UI-R-DYO
TAG_TISSUE-cartilage
TAG_SEO-CTAATGGACG"
a 115 c 116 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Seq primer: M13 Forward
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                                                                 Contact: Soares, MB
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Matches 302; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .661
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AUTHORS
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          MEDLINE
PUBMED
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AUTHORS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ARO03832 145 bp mRNA linear HTC 19-JAN-2002 Mus musculus 18 days embryo whole body cDNA, RIKEN full-length enriched library, clone:1110019010:unclassifiable transcript, full
                                                                                                                           4.
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             taaaaaaggaaatgtaagtccactctcaatctcataaaaggtgagagtaaggatgctaaa 550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              312 a-ttttgtacaatctagttaaacaagcagaatagcactaggcagaataaaaaattgcaca 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 430
                                                                                                                                                                                                                                        67 AAAATTIGATICCAAGCATAIGIAATTIAGCICTIGGGAGCAGGGCAITAIICACAAAAG 126
                                                                                                                                                                                                                                                                                       251
                                                                                                                                                                                                                                                                                                                    127 AG-----AAAAGAIAIIIAIIIGAAGAACAGAAIAIICAGACIIGIIIAIIC 175
                                                                                                                                                                                                                                                                                                                                                  ctaaaaagcccatttccctccaagtctaaactttgtaatttgatattaagcaatgaagtt 311
                                                                                                                                                                                                                                                                                                                                                                                                                                 tttttttttttttttttattgatcagaattcaggctttattattgagcaatgasaacagct 131
                                                                                                                                                                                                                     132 aaaacttaatteeaageatgtgtagttaaagtttgeaagtgggatattgtteacaaae 191
                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HTC: CAP trapper.
Mus musculus (strain:C57BL/6J) 18 days embryo cDNA to mRNA.
clone_lib:RIKEN full-length enriched mouse cDNA library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            551 gcaaaataaatgtaggttctttttttttgtttccgtttatcatgcaatct
                                                                                                                           0; Mismatches 200; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Carninci,P. and Hayashizaki,Y.
High-effictency full-length cDNA cloning
Wath. Enzymol. 303, 19-44 (1999)
9279253
                                                                                            ; DB 10;
4.7e-11;
                              209
                                                                                              Score 122;
Pred. No. 4
TAG_TISSUE=cartilage
TAG_SEQ=CTAATGGACG"
104 c 111 g
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                                                                                              8.98;
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Mus musculus
                                                                                                                              306; Conservative
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Arakava, T. Baldarelli, R., Bono, H., Brownstein, M., Bult, C.,

Arakava, T., Baldarelli, R., Bono, H., Brownstein, M., Bult, C.,

Arakava, T., Eukuda, S., Fukunishi, Y., Furuno, M., Hanaqaki, T.,

Hara, A., Hayatsu, N., Hill, D., Hiraoko, K., Hiraoka, T., Hume, D., Imotani, K., Ishi, Y., Itoh, M., Izawa, M., Kasukawa, T.,

Rato, H., Kawai, J., Kojima, Y., Konno, H., Kouda, M., Koya, S.,

Kurihara, C., Matsuyama, T., Miyazaki, A., Nishi, K., Nomura, K.,

Numazaki, R., Ohno, M., Okazaki, Y., Okido, T., Owa, C., Quackenbush, J.,

Saito, H., Saito, R., Sakai, C., Sakai, K., Sano, H., Sasaki, D.,

Schrim, L., Shibata, K., Shibata, Y., Shabata, T., Yamanaka, I.,

Tanaka, T., Tejima, Y., Toya, T., Yamanaka, I.,

Yasunishi, A., Yoshida, K., Yoshino, M., Muramatsu, M., and
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/db_xref="MGD:MG1:1900577"
/db_xref="taxon:10090"
/clone="ilb="RIKEN full-length enriched mouse cDNA library"
/dov_stage="18 days embryo"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (10-JUL-2000) Yoshihide Hayashizaki, The Institute of Submitted (10-JUL-2000) Yoshihide Hayashizaki, The Institute of Exploration Research Group, RIKEN Gemomic Sciences Center (GSC), RIKEN Vokohama Institute: 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:genome-res@sc.riken.go.]p, Physhttp://genome-gsc.riken.go.]p/, Tel:81-45-503-9222,
                                                                                                                                                  Shibates, Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Konno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A., Yamamoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Yoneda, Y., Ishikawa, T., Ozawa, Y., Izawa, M., Ohara, E., Natahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Murametsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y. PIKEN integrated sequence analysis (RISA) system--384-format Genome Res. 10 (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4 (sites)
The RIKEN Genome Exploration Research Group Phase II Team and the
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Functional annotation of a full-length mouse cDNA collection
新聞ure 409, 685-690 (2001)
5 (bases 1 to 745)
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10 (10), 1617-1630 (2000)
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Hayashizaki,Y.
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Shibata, K.,
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BM391251
UI-R-DYO-ckq-k-16-0-UI.sl UI-R-DYO Rattus norvegicus cDNA clone
UI-R-DYO-ckq-k-16-0-UI 3', mRNA sequence.
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Email: msoares@blue.weeq.uiowa.edu
Fax: 319 335 9555
Email: msoares@blue.weeq.uiowa.edu
Email: msoares@blue.w
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            /note-"vector: pCMV SPORT6: Site_1: Xbal: Site_2: Xhol:
Library made from pooled tissue from day 11, 13, 15, 20.
and 30 embryos."
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Bonaldo,M.F., Lennon,G. and Soares,M.B.
Normalization and subtraction: two approaches to facilitate gene
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
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                                                                                                                                                                                    Score 110.8; DB 9;
Pred. No. 4.5e-09;
0; Mismatches 127;
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/lab_host="DH10B"
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Single pass sequencing. Bases called and alt_trimmed with phred
v0.980904.e. Vector identified by cross_match with the minscore 18
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus. 1 (bases 1 to 369)
Earhrenkrung.S.C., Freking, B.A., Rohrer, G.A., Smith, T.P.L., Casas, E. Stone, R.T., Heaton, M.P., Grosse, W.M., Bennett, G.A., Laerreid.W.W., and Keele, J.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Design and use of two pooled tissue normalized cDMA libraries for EST discovery in swine Unpulshed (2000)
Contact: Smith TPL
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                                              Length 745;
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PO Box 166, Clay Center, NE 68933-0166, USA
TITL: 402 752 4390
Fax: 402 762 4390
                                           Score 119; DB 11; Pred. No. 1.4e-10; 0; Mismatches 135;
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/db_xref="taxon:9823"
/clone_lib-"MARC 1PIG"
/tissue_type="pooled"
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Plate: 45 row: A column: 13
Seq primer: ATTTAGGIGACACTATAG.
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                                                                                                                                                                                                                      / Jerrain Spragues most sequence for the following site and dile structh. The Rat cartilage tissue was provided by the following site and dile structh. The Rat cartilage tissue was provided by the following site and dile structh. The Rat cartilage tissue was provided by the Jeff Sterens at the University of Iowa.

14G_LIB-UI-R-DYO
116_LIB-UI-R-DYO
116_LIB-UI-R-DYO
116_LIB-UI-R-DYO
117_CLIB-UI-R-DYO
117_CLIB-UI-R-D
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Soares Lab Clone distribution: clones will be available through Research Genetics (www.resgen.com) The following repetitive elements were found in this CDNA sequence: 413-591, >R1_MM#SINE/Alu 436-491, >PRIDIO#SINE/ALU 511-570, >ID#SEIRE/ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                330 aaacaagcagaatagcactaggcagaataaaaaattgcacagacqtatgcaattttccaa 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         69 CAAGCCTTAAATTTATGCTGCTGTTTTAAGCAATGAAGTTATTTTTATAAAACCTAGTT 128
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     129 AAGCAAITIAAIGGGAAIAGCAICGITAGAATAAAAAAIIGCACACAIGCGIIACICIGA
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60.1%; Pred. No. 2.6e-07;
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/organism="Rattus norvegicus"
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Granusca Metanos.

Enkaryota: Metazoa: Chordata: Craniata: Vertebrata: Euteleostomi: Actinopherygii: Neopeleostei: Neoteleostei: Acanthomorpha: Acanthomorph
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'n
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Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Pan.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: naruse@biol.s.u-tokyo.ac.jp
This clone was isolated from OLHNI cell line cDNA library (OLb)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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Frijtyama, A., Hattori, M., Toyoda, A., Taylor, T.D., Yada, T., 10toki, Y., Watanabe, H. and Sakaki, Y.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /db_xref="taxon:8090"
/clone="0ub01.01h"
/clone=1b="0uHN1 cell line CDNA library (OLb)"
135 c 147 q 103 t
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ilarity 83.3%; Pred. No. 4.4e-06;
Conservative 0; Mismatches 21;
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Pan troglodytes male lymphoblast DNA.
PAC Library clone:PTB-040L14.F.
Pan troglodytes
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Oryzias latipes"
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BASE COUNT
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rel:81-45-503-9111, Fax:81-45-503-9170)
Clones are derived from the chimpenzee BAC library PTB This BAC end
was generated during the R&D process and may have higher chance of
clone tracking errors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Thomas, S.W., Rasmussen, S.W., Glaring, M.A., Rouster, J.A. and Oliver
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'rene identification in the fungal pathogen Blumeria graminis by rene identification in the fungal pathogen Blumeria graminis by renessed sequence tag analysis inpublished (2000)
Contact: Rasmussen.S.W.
Department of Yeast Genetics
Carlsberg Laboratory
10 G1. Carlsbergvej, DK-2500, Copenhagen, Denmark
Tel: 45 3327 4766
                                                                                                                                                                                                                                                                                                                                                                                                                                                        142 tccaagcatgtatgtaagttaaagtttgca-----aagtgggatattgttcacaaaacac 193
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Blumeria graminis f. sp. hordei
Fukaryota: Fungi: Ascomyoota: Pezizomycotina: Leotiomycetes:
Erysiphales: Erysiphaceae: Blumeria.
1 (bases 1 to 677)
                                                                                                                                                                                                                                                                                                                                                                                                                               13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Blumeria graminis f. sp. hordel"
/db_xref "taxon:62688"
/clone="Col755"
/clone_ilb="Lambda Zap, Stratagene"
/cell_type="conidia"
                                                                                                                                                                                                                   /organism="Pan troglodytes"
/db_xref="taxon:9598"
/clone="PTB-04014Fr"
/sex="male"
/cell_type="lymphoblast"
/clone_lib="PTB Chimpanzee Male RAC Library"
a 157 c 127 g 189 t 1 others
                                                                                                                                                                                                                                                                                                                                                                                        6.7%; Score 92; DB 12; Length 658:
83.7%; Pred. No. 4.7e-06;
tive 0; Mismatches 15; Indels
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R.Site 1 : SacI
R.Site 2 : SacI.
                                                                                                 Sequencing: -21M13
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Best Local Similarity 83.77
Matches 144; Conservative
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Gaps
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                                                       677;
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Best Local Similarity 93.0%; Pred. No. 1.6e-05;
Matches 93; Conservative 0: Mismatches 7;
/lab_host="Hordeum vulgare"
162 a 179 c 191 g 143 t
                                                                                                                                                                                                                  Search completed: April 29, 2002, 17:16:55 Job time: 13214 sec
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2 others

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Homosapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

En 10 bases 1 to 519)

RS NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.

National Cancer Institute, Cancer Genome Anatomy Project (CGAP).

Tumor Gene Index

Unpublished (1997)

Context: Robert Strausberg, Ph.D.

Email: cgapbs r@mall.nih.gov

Tissue Procurement: Christopher Moskaluk, M.D., Ph.D., Michael R.

Emmert-Buck, M.D., Ph.D.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: NCI-CGAP clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

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A0129634 HS_2255_E

AW004000 W994903.X

A0781743 HS_2255_E

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Tissue Procurement: Christopher Moskaluk, M.D., Ph.D., Michael R.
Emmert Buck, M.D., Ph.D.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing Dy: Washington University Genome Sequencing Center
Clone distribution: NCI-CGAP clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
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Mammalia: Eutheria: Primates: Catarrhini: Hominidae: Homo.
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NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
NAI/ORAP http://www.ncbi.nlm.nih.gov/ncicgap.
Unditional Cancer Institute, Cancer Genome Anatomy Project (CGAP), Unpublished (1997)
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/lab_host="DH10B"
/note="Organ: stomach; Vector: pCMV-SPORT6; Site_1: Sal1:
/note="Organ: cloned unidirectionally. Primer: Oligo dT.
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Pred. No. 7.7e-92;
www.bio.llnl.gov/bbrp/image/image.html
Seg primer: -400P from Gibco
High quality sequence stop: 420.
Location/Qualifiers
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A1801231.1 GT:5366703
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Best Local Similarity
Matches 464: Conserv
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1. .450
/organism="Homo sapiens"
/db_xref="GDB:557764"
/db_xref="taxon:9606"
               GI:855219
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Best Local Similarity 94.6
Matches 424; Conservative
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R78938.1
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                                                                   CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Washington University Genome Sequencing Center
Clone distribution: NCI-CCAP Clone distribution information can k
Gound through the I.M.A.G.E. Consortium/LLNL at:
www.bio.llni.gov/bbrp/image.html
Insert Length: 866 Std Brror: 0.00
Seq primer: -40UP from Gibco
High quality sequence stop: 410.
Location/Qualifiers
                                                                                                                                                                                                                                                       /clone=!INGE:2185171
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/tissue_type="poorly differentiated adenocarcinoma with
signet ring cell features"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     587
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y187e07.s1 Soares placenta Nb2HP Homo sapiens cDNA clone
IMAGE:146244 3', mRNA sequence.
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Pred. No. 5.6e-91;
2; Mismatches 0; Indels 1;
                                            Ph.
            Contact: Robert Strausberg, Ph.D.
Email: cgapbs-ranail.nh.gov
Tissue Procurement: Christopher Moskaluk, M.D.,
Emmert-Buck, M.D., Ph.D.
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/db_xref="taxon:9606"
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1 (bases 1 to 450)
Hilliler L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M., Holman,M., M. Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,M., Parsons,J., Pifkin,L., Rohlfing,T., Soares,M., Tan,F., Trevaskis,E., Materston,R., Williamson,A., Wohldmann,P. and Wilson,R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Insert Size: 2081
High quality sequence stops: 329
Source: NAGE Consortium, LLNL
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
Insert Length: 2081 Std Error: 0.00
Seq primer: Promega -21ml3
High quality sequence stop: 329.
Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Wilson RK
Washington University School of Medicine
444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
Fax: 314 286 1810
Email: est@watson.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       36.8%; Score 340.4; DB 10; Length 450; 94.6%; Pred. No. 1.7e-66; Live 2; Mismatches 15; Indels 7;
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/db_xref="taxon:9606"
/db_xref="taxon:9606"
/db_xref="taxon:9606"
/dc_stage="GNU250"
/dc_stage="Adult"
/note="Organ: placenta_normal; Vector: puc18; Site_1: SmaI
/note="Organ: placenta_normal; Vector: puc18; Site_1: SmaI
/site_2: SmaI; A mini-library was made by cloning
products derived from ORESIES PCR (U.S. Letters Patent
application No. 196,716 - Ludwig Institute for Cancer
Pesearch) profiles into the puc 18 vector: Reverse
transcription of tissue mRNA and cDNA amplification were
performed under low stringency conditions:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BG007631 505 bp mRNA linear EST 24-JAN-2001
QV4 GN0250-281100-608-f05 GN0250 Homo sapiens cDNA, mRNA sequence.
BG007631. GI:12452005
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Eukaryota; Meracoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Hammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 503)

Dias Neto,E., Garcia Correa,R., Verjovski-Almeida,S., Briones,M.R.,

Nagai,M.A., da Silva,W. Jr., Zago,M.Ä., Bordin,S., Costa,F.F.,

Goldman,G.H., Carvalho,A.F., Matsukuma,A., Baia,G.S., Simpson,D.H.,

Brunstein,A., deOliveira,P.S., Bucher,P., Jongeneel,C.V., O'Hare

M.J., Soares,F., Brentani,R.R., Reis,L.F., de Souza,S.J. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tel: +55-11-2704922

Fax: +55-11-2707001

Fax: +55-11-2707001

In a simpson dividing org. br

This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL

Project. This entry can be seen in the following URL

Project. This entry can be seen in the following URL

Project. This entry can be seen in the following URL

281100-608-f05543=2000-11-28644=1)

Seq primer: puc 18 forward

High quality sequence start: 17

High quality sequence stop: 505.
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Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar, 01509-010, Sao Paulo-SP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Shotgun sequencing of the human transcriptome with ORF expressed sequence tags % \left( 1\right) =\left\{ 1\right\} =\left\{ 
                                                                                                                                                                                                                                                                                                                           208 CACACAGCIAGAAACIGCAAAGCCCIGGGAIIGAICCAIGAICIICCAGCAIIGAAGAAI 149
                                                                                                         Proc. Natl. Acad. Sci. U.S.A. 97 (7), 3491-3496 (2000)
20202663
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Pred. No. 1.4e-52;
7; Mismatches 55:
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Est Local Similarity 85.1%;
Pytches 395; Conservative
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Gaps

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55: Indels

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Homo sapiens

Eukaryota: Metazoa: Chordata; Craniata; Vertebrata: Euteleostomi:
Eukaryota: Metazoa: Chordata; Catarrhini: Hominidae: Homo.

Hommalia: Eutheria: Primates; Catarrhini: Hominidae: Homo.

(bases 1 to 414)

S Grant (145)

NGI-GAPP HITE://www.ncbi.nlm.nih.gov/ncicgap.

National Cancer Institute, Cancer Genome Anatomy Project (CGAP).

Tumor Gene Index

Unpublished (1997)

Email: cgapbs.rémail.nih.gov

This clone is available royalty-free through LLNL; contact the This clone is available royalty-free through LLNL; contact the This clone is available. The Contact information.

Insert Length: 1011

Seq primer: 4000 from Gibco.

Seq primer: 4000 from Gibco.

High quality sequence stop: 396.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            414 bp mRNA linear EST 20-OCT-20:0
FWAGE:2257361 3', mRNA sequence.
                                                                                                                                                                                                                                                            CCAAAGGACAGGAACAGCTTG-AAAGTACTTGCAT-CCTTCCTGCAGGGACCAGCCCTTT 105
                                                                                                                                                                          inthaatginicargnamarincetincaaatgnerneincactmacinrgmatitgggt 180
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  caaaggnacaggaacagcttgnaaagtactgncatncctncctgcagggaccagccttt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="laxNB:2567361"
/clone_lib="Soares_NFL_T_GBC_S1"
/lab_host="DH108"
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/note="Vector: pAMP10; Site_1: Not1; Site_2: EcoRI; 1st
                  /clone_lib="NCI_CGAP_Prl"
/sex="Male"
                                                  /dev_stage="45 years old"
/lab_host="DH108"
     /clone="IMAGE:1008109"
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BG009951.1 GI:12456657
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Best Local Similarity 66.4%;
Matches 142; Conservative 7
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Lumpor Listed (1997)
Contact: Robert Strausberg, Ph.D.
Contact: Robert Strausberg, Ph.D.
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-rfmail.nih.gov
Tissue Procurement: W. Marston Linehan, M.F., Fodrigo C'maqui, M.D.,
Michael Emmert-Buck, M.D., Ph.D.
CDNA Library Preparation: David B. Krizman. Ph.D.
CDNA Library Preparation: David B. Krizman. Ph.D.
DNA Sequencing by: Mashington University Genome Systems Inc., Grog Lennen, Ph.D.
DNA Sequencing by: Mashington University Genome Glound through the I.M.A.G.E. Consortium/LLN. at:
Clone distribution: NGI-CSAP clone distribution information can be found through the I.M.A.G.E. Consortium/LLN. at:
Seq primer: 41ml3 fwd. Effrom Amersham
High quality sequence stop: 172
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Eukaryota; Metazoa: Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia: Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 215)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatom; Project (CGAP),
1.M.A.G.E. clones 297480-302087, 682632-687239,
726408-728711, and 729096-731399. Subtraction by Bento
Soares and M. Fatima Bonaldo. I others
79 c 76 g 138 t
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    162 ACCTTAAAGAACTCCGTTAATTTCTCAGAGCCTCAGTTTCCTTGTCTTGTCTTGGGAGT 103
                                                                                                                                                          Gaps
                                                                                                                     Length 414;
                                                                                                                                                        55; Indels
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Pred. No. 6.1e-48;
7; Mismatches 55
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/db_xref="taxon:9606"
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nc14407.sl NCI_CGAP_Pr1 Hc
sequence.
AA228748.1 GI:1851445
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82.8%;
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Eukaryota: Metazoa: Chordata: Craniata; Vertebrata: Euteleostomi; Mammalia: Eutheria: Primates; Catarrhini; Hominidae: Homo. 1 (Dases I to 32) Dias Los Li. (Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R., Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F., Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H., Brunstein, A., deoliveira, P.S., Bucher, P., Jongeneel, C.V., O'Hare M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and
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Fax: +55-11-2707001
Email: asimpson'eludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome
Project. This entry can be seen in the following URL
Strand cDNA was primed with oligo (dT)17 on 50 ng of DNAse-treated, total callular RNA obtained from 5,000-10 (OO microdissected, histologically normal prostate epithelial cells. Double-stranded cDNA was ligated to ECORI adaptors, 5 cycles of PCR applied to the cDNA with an adaptor-specific primer, and the resulting PCR product subcloned into pAMP10 by the UDG-cloning method (Life Iechnologies). Average insert size is 600 bp. NOTE: Not directionally cloned. This library was constructed by David Krizman."
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MRI-GN0173-041200-018-e03 GN0173 Homo sapiens cDNA, mRNA sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              212 aactggatctgccacttatcagttatgtgaccttaaagaactccgttaatttctcagagc 271
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Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar, 01509-010, Sao
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 98.2; DB 9; Length 215;
Pred. No. 6e-12;
7; Mismatches 61; Indels
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Sequencing: M13Rev
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Best Local Similarity 52.89
Matches 153; Conservative
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R.Site 1
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                                                                                                                                                                                                                                         locate: "Homo sapiens"

/organism-"Homo sapiens"
/organism-"Homo sapiens"
/db.refe**taxon:9666*
/clone_lib="cN0173"
/dev_stage="Adult"
/dev_stage=
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Fujiyama, A., Hattori, M., Toyoda, A., Taylor, T.D., Yada, T.,
Totoki, Y., Watanabe, H. and Sakaki, Y.
Direct Submission
Burneted (02-AuG-2001) Asao Fujiyama, The Institute of Physical
and Chemical Research (RIKEN), Genomic Sciences Center (352);
1-7-22 Suehiro-chou, Tsurumi-ku, Yokohama, Kanagawa 230 (475, Japan
1-7-22 Suehiro-chou, Tsurumi-ku, Yokohama, Kanagawa 230 (475, Japan
1-7-25 Suehiro-chou, Tsurumi-ku, Yokohama, Yok
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GSS; GSS (genome survey sequence).
Pan troglodytes male lymphoblast DNA, clone_lib:PTB Chimpanzee Male
BAC Library clone:PTB-044111.R.
Pan troglodytes
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi:
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pan.
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(http://www.ludwig.org.br/scripts/gethtml2.pl?tl=MR1&t2=MR1.GN0173-041200-018-e03&t3=2000-12-04&t4-1)
Seq primer: puc 18 forward
High quality sequence start: 84
High quality sequence stop: 321.
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Pan troglodytes DNA, clone: PTB-044111.R, genomic survey sequence.
AGO57824
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 (sites)
Fujlyama.A., Hattori,M., Toyoda,A., Taylor,T.D., Yada,I.,
Totoki,Y., Atanabb,H. and Sakaki,Y.
BAC end sequences of Library PIB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11arity 55.7%; Pred. No. 0.0012;
Conservative 0: Mismatches 93; Indels 0
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Bonaido, Ph.D. com A. Library Arrayd by: Greg Lennon, Ph.D. com Library Arrayd by: Greg Lennon, Ph.D. com A. Sequencing by: Washington University Genome Sequencing Orlone distribution: NCI-CGAP clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: ****-bio.llnl igov/Dbrp/image/image.html
Insert Length: 945 Std Error: 0.00
Seq primer: -400P from Gibco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A1937404 app. BST 08-MAR-2000 wp76905.xl NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2467736 3',
                                                                                                                                                                                                                                                                                                                   :
                                                                                                                                                                                                                                                                                                                                                                                                                               590 gitciagcaaigigaagc---aggaactatqaitataiigactacaiaaaigaagaaaii 646
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                                                                                                                                                                                                                                                                                                                                                       530 ttctatacttgttatggtcaagtaactggqtcagcatttacattcattgtctctttaa 589
                                                                                                                                                                                                                                                                                                                                                                             cDNA Library Preparation: M. Bento Soares, Ph.D., M. Fatima
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                707 ggattgatccatgatcttccagcattgaagaatcataaatgtaaataactgcaaggcctt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        647 gaggetcagatacattaagtaatteteccagggteacacagetagaactggcaaageetg
                                                                                                                                                                                                                                                                                                                   3;
                                                                                                                                                               /cell_type="lymphoblast"
/clone_lib="PTB Chimpanzee Male BAC Library"
116 c 159 g 199 t l others
                                                                                                                                                                                                                                                                             Score 59.6; DB 12; Length
Pred, No. 0.0026;
0; Mismatches 134; Indels
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                                                                                           /organism="Pan troglodytes"
/db_xref="taxon:9598"
/clone="PIB-044111.R"
/sex="male"
                                                         Location/Qualifiers
: pKS145
: SacI
: SacI
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                                                                                                                                                                                                                                                                                 5.5%;
52.8%;
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Gaps

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High Throughput Sequencing Center University of Washinaton 401 Out-on Anne Avenue North, Seattle, WA 98109, USA 401 Out-on Anne Avenue North, Seattle, WA 98109, USA 1et: (205) 616-3887
Email: jxallacefu.washington.edu
Email: jxallacefu.washington.edu
Library availability, please contact Pieter de Jong
Library availability, please contact Pieter de Jong
Clones are derived from Lebufalo.edu). Clones may be purchased from PacpAC Resources (http://bacpac.med.buffalo.edu/ordering_bac.htm)
or from Resear h Genetics (info@resgen.com). BAC end Neb Server:
http://www.htsc.washington.edu
Plate: 924 row: O column: 10
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Adams, M.D. and
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Mammalia: Eutheria; Primates; Catarrhini; Hominidae; Homo.
http://www.tigr.org/tdb/humgen/bac_end_search/bac_end_search.html
Class: BAC ends.
                                                                                                                                                                                     /cell_type="Lymphocytes"
/note="vector: pBACe3.6; Site_1: EcoRI; Site_2: EcoRI:
RPCIII Human MBAC Library"
102 84 9 128 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HS_5348_A2_H05_T7A RPCI-11 Human Male BAC Library Homo sapiens genomic clone Plate=924 Col=10 Row=0, DNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                             253 totcagagootoagittootigictataagitigggagitaatattaatactatoatitic 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             323 caaggattgatgtgaacattaatgaggtgaaatgacagatgtgtatcatggttcc---t 378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 148 GIIGICIGGGAGAIIGAAIGAGIIAAGIIIGIAAAGAGCIIAGAACAGIGICIGCCAGAG 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence-tagged connectors: A sequence approach to mapping scanning the human genome Proc. Natl. Acad. Sci. U. S. A. 96 (17), 9739-9744 (1999) 99380589
                                                                                                                                                                                                                                                                                                                         Length 433;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 (bases 1 to 508)
Mahairas, G.C., Wallace, J.C., Smith, K., Swartzell, S., Keller, A., Shaker, R., Furlong, J., Young, J., Zhao, S.,
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Pred. No. 0.0069;
0; Mismatches 92;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA
                                                                       /organism="Homo sapiens"
/db_xref="GDB:7521344"
/db_xref="taxon:9606"
/clone_lib="RPCI-11"
/clone_lib="RPCI-11"
/sex="Male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           508 bp
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GSS.
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PPC111-55J9.TK.1 RPC1-11 Homo sapiens genomic clone RPC1-11-55J9,
DNA sequence.
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Adams, H.D. Rounsley, S.D., Zhao, S., Bass, S., Linher, K., Golden, K., Berry, K., Granger, D., Sub, E., Wible, C., de Jong, P. and Venter, J.C. Unpublished (1998)
Other_GSSS: RPCIII-56J9.TJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Email: mdadamsftigr.org
Clones are derived from the human BAC library FFC1-11. For BAC
library availability, please contact Piete: de Jong
(pieter@dejong.med.buffalo.edu). Clones may be purchased from
BACPAC Resources (http://bacpac.med.buffalo.edu/ordering) or from
Research Genetics (info@resgen.com). BAC end search page:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         548 caagtaactgggctcagcattttacattcattgtctctttaagttctagraatgtgaagc 607
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                                                                                                                                                                                                                                                                                                                                                                                                                         Length 393;
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Contact: Mark Adams
Department of Eukaryotic Genomics
The Institute for Genomic Research
9712 Medical Center Dr., Rockville, MD 208F9,
Fax: 301 838 0200
       High quality sequence stop: 379.
Location/Qualifiers
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Vector: pBeloBAC11; BAC Clones in

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Eukaryota: Metazoa: Chordata: Craniata: Vertebrata; Euteleostomi:
Mammalia: Eutheria: Primates; Catarrhini; Hominidae: Homo.
1 (bases 1 to 420)
Mahairas, G.G., Wallace, J.C., Smith, K., Swartzell, S., Holzman, I.,
Reller, A., Shaker, R., Furlong, J., Young, J., Zhao, S., Adams, M.D. and
                                                       /db_xref="taxon:9606"
/clone="Plate=2243 Col=8 Rox=J"
/clone_lib="CIT Approved Human Genomic Sperm Library D"
/sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nouse, to agged connectors: A sequence approach to mapping and scanning the human genome.

Proc. Natl. Acad. Sci. U. S. A. 96 (17), 9739-9744 (1999) 99380589

Contact: Mahairas GG, Wallace JC, Hood L. High Throughput Sequencing Center.

Mingh Throughput Sequencing Center.

University of Washington
401 Oueen Anne Avenue North, Seattle, WA 98109, USA Tel.: (206) 516-3518

Fax: (206) 516-3518

Email: jwallace**U washington.edu
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Pred. No. 0.0076;
0; Mismatches 55; Indels
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/Ah xref="taxon:9506"
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/note-vector: pAMP10: mRNA made from invasive thyroid tumor, cDNA made by oliqo-dT priming. Non-directionally cloned. Size-selected on agarose gel, average insert size 600 bp. Reference: Krizman et al. (1996) Cancer Research 56:5380-5383.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Robert Strausberg, Ph.D.

Email: Gapbs-remail.nih.gov
Tissue Procurement: L. Jeffrey Medeiros, M.D., Michael R.

Emmert-Buck, M.D., Ph.D.

Emmert-Buck, M.D., Ph.D.

CDNA Library Preparation: David B. Krizman, Ph.D.

CDNA Library Arrayed by: Greg Lennon, Ph.D.

CDNA Library Arrayed by: Greg Lennon, Ph.D.

Clone distribution: N.I.-GAP clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

****-bio.llnl.gov/bbrp/image/image.html
Insert Length: 389 5td Error: 0.00

Seg primer: -40mil Ard. ET from Amersham.
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 304)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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                                                                                                                                   Length 420;
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Pred. No. 0.0095;
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/tissue_type="thyroid"
/lab_host="DH10B"
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/db_xref~"taxon:9606"
/clone="IMAGE:1144360"
/note="Organ: sperm;
E-Coli DH108"
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/dev.stage="abarathyroid tumor"
/lab_host="DH10B (ampicillin resistant)"
/lab_host="DH10B (ampicillin resistant)"
/lab_host="OH10B (ampicillin resistant)"
/lab
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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   ch 6.1%; Score 56.8; DB 9; Length 304; I Similarity 51.7%; Pred. No. 0.012; 82; Conservative 2; Mismatches 49; Indels (
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Email: cgapbs-r@mail.nih.gov
CDNA Library Preparation: M. Bento Soares, Fh.D.
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                                               Gaps
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Length 372;
  Score 56.8; DB 9; Length 3: Pred. No. 0.012; 0; Mismatches 87; Indels
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Scoring table:

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Minimum DB Maximum DB

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AC015461 HTGS_PHASE1: 158195 bp DNA linear HTG 27-JUL-2000 Homo sapiens clone RP11-115N17, WORKING DRAFT SEQUENCE, 10 NOORdered pieces.
AC015461 AC015461.3 G1:9502445 HTGS_PHASE1; HTGS_PRAFT.
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 158195)
Birren, B., Linton, L., Nusbaum, C. and Lander, E.
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AC023088
AC024081
CNS01DW6
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AC1055833
AC104785
AC108154
HS418154
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AP000922
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   RESULT 1
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          00000
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(without alignments)
2410.795 Million cell updates/sec
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1 caaaggnacaggaacagctt.....aaggcaaaaaaaaaaaa 924
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                                                                          Compugen Ltd.
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                                 GenCore version 4.5
Copyright (c) 1993 - 2000 Comp
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                                                                                                                                                                     - nucleic search, using sw model
                                                                                                                                                                                                                                  April 29, 2002, 19:41:12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
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Howland, J.C., Johnson, R., Jones, C., Kann, L., Karatas, A., Klein, J., Lehoczky, J., Lieu, C., Locke, K., Macdonald, P., Marquis, N., McLaughlin, J., Marquis, N., McLaughlin, J., Wiman, D., Ye, W.J., Zimmer, A. and Zody, M. Wheeler, J., Mu, X., McTangar, J., McLaughlin, J., McLaughli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 arbitrary. Gaps between the contigs are represented as runs of N. but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Center clone name: 115_N 17

Center clone name; Statistics
Sequencing vector: M13, M7818, 1009 of reads
Sequencing vector: M13, M7818, M7818, of reads
Assembly program: Phrap; version 0.960731
Assembly program: Phrap; version 0.960731
Consensus quality: 15496 bases at least 040
Consensus quality: 15496 bases at least 030
Consensus quality: 156006 bases at least 030
Insert size: 157000; agarose-fp
Insert size: 157295; sum-of-contigs
Ouality coverage: 5.8 in 020 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NOTE: This is a 'working draft' sequence. It currently consists of 10 contigs. The true order of the pieces is not known and their order in this sequence record is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: sequence_submissions@genome.xi.mit.edu
------ Project Information
Center project name: L1907_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4659 45698: gap of 100 bp 46699 71912: contig of 25214 bp in length 71913 72012: gap of 100 bp 72013 95512: contig of 24600 bp in length 95713: gap of 100 bp 95713 128331: contig of 31619 bp in length 128332 128431: gap of 100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       contig of 29764 bp in length.
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f 12902 bp in length
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45598: contig of 17852 bp in length
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12009 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1003 1102: gap of 100 bp
1103 2388: contig of 1286 bp in length
2389 2488: gap of 100 bp
2489 3525: contig of 1037 bp in length
3525 3525: gap of 100 bp
3525 15527: contig of 12902 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1002: contig of 1002 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BACT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Web site: http://www-seg.wi.mit.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
1. 158195
7. Grganism="Hono sapiens"
7db_xref="taxon:9505"
7clone="RP11-115N17"
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2489. .3525
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16628 28536: contig of 1
28637 28736: gap of 1
28737 45598: contig of 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Center code: WIBR
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                                                                                                                                                                                                                                                                                                                                            TITLE
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Db 118962 CCAAAGGACAAGAACAGCTTG-AAAGTACTTGCAT-CCTTCCTGCAGGGACCAGCCTTT 149019
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; 481 tgaffttctagtttggaagagctattaaataacaacktctagtgtcaattctatacttg 540 bb 149435 IGAGTTTTCTAGTTTGCAAGAGCTATTAAATAACAAGGCTAGTGTGAATGTTAGTTG 149494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DD 149077 IIAIAAGICTAAGGAGAAGTCACTTCAAAATGCAGCATCACATACAATAGAATTTGGG 149136
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 gcctccaaaagcaataggaaatttaaaagatttncactgagaaggggnccacgtttnart 120
                                                                                                                                                                                                                                                                                                                                                                                                                                 8; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 caaagnaragqaacagcttgnaaagtactgncatncctncctgcagggaccagccttt 60
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pred. No. 4.6e-178;
9; Mismatches 55;
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96713. 128331
/note="assembly_fragment"
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/note="assembly_fragment"
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              3625. .16527
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on Aug 31, 2001 this sequence version replaced ji:14161146.
During sequence assembly data is compared from overlapping clones. Where differences are found these are amoutated as variations rogether with a note of the overlapping clone, as variations annotation may not be found in the sequence submission corresponding to the overlapping clone, as we submit sequences with only a small overlap as described above.

This sequence was finished as follows unless otherwise noted: all regions were eighter double-stranded or sequencily with an alternate chemistry or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were orgered by the pastriction digest. The following abbreviations are used to associate primary accession numbers aiven in the feature table with their source databases: Em. EMBL. Swire such database can be found a Wir, WORMPEP; Informati'n on the WORMPEP.
                                                                                                                                                                                                                                                                                                                                                                                                  AL157394 187313 bp DNA linear PRI 22-AUG-2001
Human DNA sequence from clone RPII-399019 on ch:vmosome 10,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   http://www.sanger.ac.uk/Projects/C_elegans/worr.pp This sequence
was generated from part of bacterial clone contias of human
chromosome 10, constructed by the Sanger Centre Chromosome 10
Mapping Group. Further information can be found at
Mapping Group. Further information can be found at
http://www.sanger.ac.uk/MBOYChill
RPII-399019 is from the library RPCII-11.2 constiucted by the group
of Pieter de Jong. For further details see
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota: Metazoa: Chordata: Craniata: Vertebrata: Euteleostomi;
Mammalia: Eutheria: Primates; Catarrhini: Hominidae: Homo.
1 (bases 1 to 187313)
                                                                                                                                                                                        149574 TCTICCAGCAIIGAAGAAICATAAAATGTAAATAACIGCAAAGGCCTIITC°ICAGAAGAGC 149733
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149614 TTAAGTAATTGTCCCAGGGTCACACGCTAGAACTGGCAAAGCCTGGGATTGATCCACGA 149673
                                          tettecageattgaagaateataaaatgtaaataaetgcaaggeetttteeteagaagage
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/db_xref="taxon:9605"
/ch:omosome="10"
/clone="RP11-399019"
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214 bp DNA linear STS 28-JAN-1999 WIAF-3335-SIS Human THudson SANGER Homo sapiens STS genomic, sequence tagged site.
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Eukaryota: Metazoa: Chordata: Catarrhini; Hominidae: Homo.

1 (bases 1 to 214)
1 (bandour, G. Perkins, N. Winchester, E. Spencer, J. Kruglyak, L. Stein, L. Hisie, L. Topaloglou, T. Hubbell, E. Robinson, E. Stein, N. Wilburn, D. Riburn, D. Ribux, J. Bubshutz, R. Chee, M. and Lander, E. S. Allerian mandian and mandivalue of
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Thermal Cycler: custom built by IAS, Costar, Cambridge
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                                                                                             Score 184.2; DB 11; Length 214;
Pred. No. 9.1e-35;
0; Mismatches 4; Indels 2:
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others
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Primer A: CAICAGAAGCAACATCITITGC
Primer B: AITCICCCAGGGICACAAG
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Large-scale identification, mapping, and genotyping of single-nucleotide polymorphisms in the human gencme

NL Science 280 (5365), 1077-1082 (1998)
                                                                                                                                                                                                                                                                   214 bp DNA linear STS 28-1AN-1999 WIEL-3334-SIS Human THudson SANGER Homo sapiens STS genomic, G43743
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/db_xref="taxon:9605"
/db_xref="taxon:9605"
/map="il2.70 cR from top of Chrl0 linkadn group"
/clone_lib="linan THudson SANYSER"
/clone_lib="linan THudson SANYSER"
/note="human SIS created from ESI in the Sanzer database"
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94 degrees C for 4.00 minutes
Denaturation:
94 degrees C for 1.50 minutes
Annealing:
72 degrees C for 1.60 minutes
POLymerization:
30 degrees C for 1.00 minutes
Thermal Cycler: custom built by IAS, Costar, Cambridge
           Contact: stSG15752a, stSG15752

Contact: Thomas Hudson

Whitehead Institute/MIT Center for Genome Research

Whitehead Institute for Biomedical Research

Whitehead Institute for Biomedical Research

Pransis 17 252 1900

Fax: 617 252 1902

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S Birren, B. Linton, L., Nusbaum, C., Lander, E., Ali, A., Allen, N., Anderson, S., Barna, N., Bastien, V., Boquslavkiy, L., Boukhqalter, B., Anderson, S., Barna, V., Campopiano, A., Chang, J., Chazaro, B., Chopell, Y., Colangelo, M., Collins, S., Collymore, A., Cook, A., Cooke, P., DeArellano, K., Diaz, J.S., Dodge, S., Faro, S., Ferreira, P., Fitzhugh, W., Gage, D., Galagan, J., Gardyna, S., Gooke, P., Petreira, P., Fitzhugh, W., Gage, D., Galagan, J., Gardyna, S., Gooke, P., Heaford, A., Horton, L., Hulme, W., Illev, I., Johnson, R., Jones, C., Kamat, A., Karatas, A., Kells, C., Lapoque, K., Jones, C., Kamat, A., Maratas, A., Kells, C., Lapoque, K., Jones, C., Kamat, A., Maratas, A., Kells, C., Levine, R., Macdonald, P., Major, J., Levine, R., Matthews, C., Macdonald, P., Major, J., Marquis, N., Matthews, C., Maran, P., McKernan, K., McPheeters, R., Meldriff, J., Marquis, J., Mquen, J., Peterson, K., Pohukhang, P., Pierre, M., Peterson, R., Rieback, M., Riley, R., Rise, C., Rogor, P., Raymond, C., Retta, R., Rieback, M., Riley, R., Rise, C., Rogor, P.,
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MUS musculus clone RP24-390H23, LOW-PASS SEQUENCE SAMPLING.
                                                                                                                                                                                                                                                                                                                                                                                                                               5;
                                                                                                                     /organism="Homo sapiens"
/db_xref="taxon:9606"
/db_xref="taxon:9606"
/map="112.70 cR from top of Chrl0 linkage group"
/clone_lib="Human Hudson SANGER"
/note="human STS created from ESI in the Sanger database"
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
1 (bases 1 to 66933)
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97.2%;
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Roman, J., Rosetti, M., Roy, A., Santos, R., Schauer, S., Schupback, R., Seaman, S., Severy, P., Spencer, B., Stange-Thomann, N., Stojanovic, N., Strauss, N., Subramanian, A., Talamas, J., Tesfaye, S., Theodore, J., Topham, K., Travers, M., Travis, N., Trigilio, J., Vassiliev, H., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M. Direct, Submission Calon, Submitted (23·NOV-2001) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA All repeats were identified using RepeatMasker:
Smit, A.F.A. & Green, P. (1996-1997)
http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                                                                                                                    Center: Whitehead Institute/ MIT Center for Genome Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          * NOTE: This record contains 84 individual

* sequencing reads that have not been assembled into

* contigs. Runs of N are used to separate the reads

* and the order in which they appear is completely

* arbitrary. Low-pass sequence sampling is useful for

* identifying clones that may be generich and allows

* overlap relationships among clones to be deduced.

* However, it should not be assumed that this clone

* will be sequenced to completion. In the event that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1547 2238 contig of 692 bp in length 1547 2238 contig of 692 bp in length 100 bp 233 3017: contig of 679 bp in length 3018 3117: gap of 100 bp 3118 3129; app of 100 bp 3198 399 3898: contig of 681 bp in length 3799 3898: contig of 681 bp in length 3789 3898: contig of 681 bp in length 3789
                                                                                                                                                                                                                                                                                                                                                                      Web site: http://www.seq.wi.mit.edu
Contact: sequence_submissions@genome.wi.mit.edu
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15845: contig of 702 bp in length
45: gap of 100 bp
16452: contig of 707 bp in length
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14063: contig of 702 bp in length
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755 1446: contig of 692 bp in length
1447 1546: gap of 100 bp
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Center clone name: 390_H_23
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12472: cont
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8524; conf
8524; gap of
9303; conf
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11571: con
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10903: con
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3487: contig of 711 bp in length 5877: app of 100 bp 100 bp 1725: contig of 698 bp in length 7385: gap of 100 bp 100 bp 1857: contig of 694 bp in length 179: gap of 100 bp in length 18852: contig of 673 bp in length
                                                                                                                                                                                                                                                                                                                         100 bp
f 703 bp in length
100 bp
f 703 bp in length
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693 bp in length
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1795 32493: contig of 699 bp in length
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99: contig of 706 bp in length
agap of 100 bp in length
81: contig of 682 bp in length
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707 bp in length
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contig of 695 bp in length
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709 bp in length
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contig of 657 bp in length
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contig of 688 bp in length:
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contig of 702 bp in length
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707 bp
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709 bp i
                                                                                 100 bp
714 bp
52: gap of 100 bp
17254: contig of 702 bp
54: gap of 100 bp
18030: contig of 676 bp
                                                       30: gap of 100 bp
18844: contig of 714 bp
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57: gap of 100 bp
21253: contig of 706 bp
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24498: contig of 7
598: gap of 10
25321: contig of 7
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31694: contig of
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19558: contig of
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22070: contig of
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25114: contig of
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27720: contig of
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22879: contig of
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23688: contig of
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20457: _
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Homo sapiens genomic DNA, chromosome 11q, clone:RP11-817315, complete sequences.
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Pred. No. 2.1e-10;
0; Mismatches 151; Indels
                            146230: gap of 100 bp 16734: contig of 704 bp in length 16704 pg ap of 100 bp 16774: contig of 709 bp in length 1743: gap of 100 bp 100 bp 1774: contig of 711 bp in length 17843: gap of 100 bp 1775; 4854; gap of 100 bp 1775; 4854; gap of 100 bp in length 17843: contig of 710 bp in length 1785; 4854: contig of 710 bp in length 1885; 4854: contig of 710 bp in length 18
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Homo sapiens
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Best Local Similarity 58.2%;
Matches 255; Conservative
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NOTE: This is a 'working draft' sequence. It currently consists of 35 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs N. but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be
                                                                                                                                                              web site: http://hpp.gsc.riken.go.jp/
Contact: hattoriggsc.riken.go.jp/
Contact: hattoriggsc.riken.go.jp/
Contact: hattoriggsc.riken.go.jp/
Center project information
Center clone name: Humbraftl1
Center clone name: RP11-750P5
Center clone name: RP11-750P5
Sequencing vector: PCR products: 100% of reads
Chemistry: Dye-terminator ET-amersham; 100% of reads
Assembly program: Phrapy version 0.990129
Consensus quality: 149299 bases at least Q40
Consensus quality: 167078 bases at least Q30
Consensus quality: 167078 bases at least Q20
Insert size: 169959; sum-of-contigs
Quality coverage: 4.01x in Q20 bases; sum-of-contigs
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URL:http://hgp.gsc.riken.go.jp/, Tel:81-42-778-9923,
Fax:81-42-778-9924)
On May 31, 2000 this sequence version replaced qi:6997738.
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Sequence updated (26-May 2000)
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Rattori.M., Ishii.K., Toyoda.A., Taylor, I.D., Hong-Seog.P., Fujiyama.A., Yada, T., Totoki,Y., Watanabe.H. and Sakaki,Y. Fujiyama.A. Itologise (1999) In press

Rattori.M., Ishii.K., Toyoda,A., Taylor, I.D., Hong-Seog.P., Fujiyama.A., Yada,T., Totoki,Y., Watanabe.H. and Sakaki,Y. Direct Submission

N. Engiyama.A., Yada,T., Totoki,Y., Watanabe.H. and Sakaki,Y. Direct Submission

N. Engiyama.A., Yada,T., Totoki,Y., Genomic Scionces Center (GSC): Kitasato Univ., 1-15-1 Kitasato, Sagamihara. Kanagawa 228-8555. Japan (E-mail:hattori@gsc.riken.go.jp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AP000922 173359 bp DNA linear HTG 30-MAY-2000
Homo sapiens chromosome 11 clone RP11-750P5 map 11q22, WORKING
DRAFT SEQUENCE, 35 unordered pieces.
                                                                                                                                                                                                                                                                                             Submitted (06-DEC-1999) Masahira Hattori, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (GSC): 1-7-22 Suchiro-chou, Tsurumi ku, Yokohama, Ranagawa 230-0045, Japan (E-mail-Hattori@gac.riken go.jp, URL:http://hgp.gsc.riken.go.jp/, 1el:81-45-503-9111, Pas.81-45-503-9170) on Mar 29, 2001 this sequence version replaced gi:ll138089.
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                                                               1 (sites)
Hattori, Shili, K., Toyoda, A., Taylor, T.D., Hong-Seog, P., Fujiyana, A., Yada, T., Totoki, Y., Watanabb. H. and Sakaki, Y. Fujiyana, A., Yada, T., Totoki, Y., Watanabb. H. and Sakaki, Y. Published only in DataBase (1999) In press
2 (bases it of 172981)
2 (bases it of 172981)
Fujiyana, Ishili, K., Toyoda, A., Taylor, T.D., Hong-Seog, P., Fujiyana, A., Yada, T., Totoki, Y., Watanabe, H. and Sakaki, Y. Direct Submission
                               Mammalia; Eutheria; Primates; Catarrhini; Hominidae: Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7.5%: Score 70.2; DB 9: Length 172981;
62.8%: Pred. No. 3.7e-07;
tive 0; Mismatches 73; Indels 1;
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Homo sapiens DNA, clone:RP11-750P5.
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/db_xref="taxon:9506"
/chromosome="11"
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167246 157345: gap of 100 bp 167346 168587: contig of 1242 bp in length 168588 168687: gap of 100 bp 168588 168687: gap of 100 bp 168958 15987: contig of 1070 bp in length 169758 170997: contig of 1140 bp in length 17098 171099 17249: contig of 100 bp 171099 17249; gap of 100 bp 171099 17249; gap of 100 bp 17249 17248: contig of 1111 bp in length 172249: gap of 100 bp
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15744 bp in length
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162623 154124: contig of 1502 bp in length
154125 154224: gap of 100 bp
15425 155574: contig of 1350 bp in length
155575 155574: contig of 150 bp
155575 157245: contig of 1571 bp in length
27. gap of 100 bp 27186; contig of 11359 bp in length 86; gap of 100 bp 33387; contig of 10101 bp in length
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95075 100459: contig of 5384 bp in length
00450 105559: gap of 100 bp
00550 105303: contig of 5744 bp in length
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80559: contig of 7318 bp in length
                                                                                                                                                                                                                                                                                                         59: gap of 100 bp
89061: contig of 8302 bp in length
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73241: contig of 9509 bp in length
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47288: contig of 9801 bp in length
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/db_xrefr"taxon:9606"
/chromosome="11"
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117598: contig of
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146821 149011; contig of
149012 149111; gap of
149112 151132; contig of
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134643 138972: contig of
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117699 123774: contig of
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146720: cc.
5820-
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89162 94975: conti
94976 95075: gap of
95076 100459: conti
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134542: cont
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143438 14672
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FEATURES

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ACU78970 185323 bp DNA linear HTG 22-NOV-2000 Homo sapiens chromosome 11 clone RP11-151M13 map 11, WORKING DRAFT SEQUENCE, 14 unordered pieces.
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Birren, B., Linton, L., Nusbaum, C., Lander, E., Abraham, H., Allen, N., Birren, B., Linton, L., Bastien, V., Beda, F., Boguslavkiy, L., Anderson, S., Barna, N., Bastien, V., Beda, F., Boguslavkiy, L., Boukhgalter, B., Brown, A., Burkett, G., Campopiano, A., Castle, A.,
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illarity 62.8%; Pred. No. 3.7e-07;
Conservative 0; Mismatches 73;
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117699. 123774
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56093. .53632
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63733, .73241
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HIG: HTGS_PHASE1; HTGS_DRAFT.
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20771 TATTAATALGCTCACTICATAAATGAAGAAACTAAAGTTTAGAAAAGTTAAATAACTTAC 20830
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84131 84230: gap of 100 bp
84231 95585: contig of 11355 bp in length
95886 95885: gap of 100 bp
95686 151552: contig of 55867 bp in length
151553 151652: gap of 100 bp
151653 185323: contig of 33671 bp in length.
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/clone_lib="RPCI-11 Human Male BAC"
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36117 c 36604 g 56410 t
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67912. 84130
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2305. .6276
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  Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cooke, F., Dazellano, K., Dewar, K., Diaz, J.S., Dodge, S., Ferreira, P., FitzHugh, W., Gage, D., Galagan, J., Gardyna, S., Ginde, S., Gorette, M., FitzHugh, W., Gage, D., Galagan, J., Gardyna, S., Ginde, S., Gorette, M., FitzHugh, W., Gage, D., Gardyna, S., Gorette, M., Hagos, B., Heaford, A., Horton, L., Thenor, R., Jones, C., Kann, L., Karatas, A., LaRocque, K., Sandald, P., Marquis, M., McCarlhy, M., McExan, P., McKernan, K., Wreters, R., Maldrim, J., Meneus, L., Miho'a, T., Meloria, J., Marquis, M., McCarlhy, M., Mecan, T., Meneus, L., Miho'a, T., Mereran, K., Connor, T., Connor, T., Connor, T., Prierce, J., Murphy, T., Naylor, J., Norman, C. H., Connor, T., Peterson, K., Fierre, M., Pisani, C., Pollara, V., Raymond, C., Pichaeck, M., Saley, R., Sange-Thoman, M., Stohaeck, M., Strauss, N., Subramanian, A., Talamas, J., Terfaye, S., Theodo-e, J., Tirrell, A., Travers, M., Trajillo, J., Vassilier, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, W. J., Young, S., Zainoun, J., Zinmer, A. and Zody, M., Direct Submission

AL Submitted (13-Aug-2000) Whitehead Institute/MII Center for Genome Research, 320 Chriss Street, Cambridge, MA 02141, USA on Nov 22, 2000 this sequence version replaced gisgigg979786.

All repeats were identified using PepeatMasker.html

Http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Center: Whitehead Institute/ MIT Center for Genome Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 * NOTE: This is a 'working draft' sequence. It currently consists of 14 contigs. The true order of the pleces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gars are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Center project name: L10752
Center clone name: L10752
Center clone name: L10752
Center clone name: 151_M_13
Center clone name: 151_M_13
Center clone name: 151_M_13
Center clone name: 151_M_13
Chemistry: Dye-terminator Big Dye: 100% of reads
Assembly program: Phrap: version 0.966731
Consensus quality: 177020 bases at least 0.40
Consensus quality: 181299 bases at least 0.20
Consensus quality: 182918 bases at least 0.20
Consensus quality: 182908 bases at least 0.20
Consensus quality: 182908 bases at least 0.20
Consensus quality: 182918 bases at least 0.20
Consensus quality: 18200 agarose-fp
Unsert size: 184023; sum-of-contigs
Quality coverage: 5.2 in 020 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Web site: http://www.seq.wi.mit.edu
Contact: sequence_submissionsigenome.wi.mit.edu
------ Project Information
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41754; contig of 7424 bp in length
41854; gap of 100 bp
53704; contig of 11850 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2204: contig of 2204 bp in length
2304: gap of 100 bp
6276: contig of 3972 bp in length
6376: gap of 100 bp
9572: contig of 3195 bp in length
13976: contig of 4304 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14075: gap of 100 bp 18878: contig of 4802 bp in length
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contig of 5641 bp in length
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                                                                                                repeat_region
                                                                                                                                            misc_feature
                                                                                                                                                                                        gene
                                                                                                                                                                                                                                                                                                                      Mclaren, S.

Direct Submission

Submitted (09-DEC-1999) Sanger Centre, Hinxton, Cambridgeshire,

CB10 1SA, UK. E-mail enquiries: humquery@sanger.ac.uk Clone
requests: clonerequest@sanger.ac.uk

on Feb 5, 1998 this sequence version replaced gi:2578126.

During sequence assembly data is compared from overlapping clones.

Where differences are found these are annotated as variations
together with a note of the overlapping clone name. Note that the
variation annotation may not be found in the sequence submission
corresponding to the overlapping clone, as we submit sequences with
only a small overlap as described above.

This sequence has been finished according to sequence map criteria
as follows. An attempt is made to resolve all sequencing problems,
such as compressions and repeats, but not neressarily within known
annotated human repeat sequence elements (e.g. Alu). Where the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The following abbreviations are used to associate primary accession numbers given in the feature table with their source databases:
Em., EMBL; Sw., SWISSPROT; TT., TREMBL; Wp., WORMPEP; Information on the WORMPEP database can be found at http://www.sanger.ac.uk/Projects/C_elegans/~crmpep This sequence was generated from part of bacterial clone contigs of human chromosome 22, constructed by the Sanger Centre Chromosome 22 http://www.sanger.ac.uk/HGP/Chr22
HILD://www.sanger.ac.uk/HGP/Chr22
(1995) Genomics 34, 213-218.
HS5769 DNA linear PRI 12-DEC-1999 DNA sequence from clone CTA-5769 on chromosome, 22412.1 Contains part of the gene for a novel Kringle and CUB domain protein, ESIs, SISs, CA repeat polymorphisms, GSSs and a CpG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This sequence is the entire insert of clone (IA-57G9 The true right end of clone RP5-1177M9 is at 100 in this sequence. Location/Qualifiers
                                                                                                                                                                                                                                                             Euteleostomi;
                                                                                                                                                             HTG; ca repeat polymorphism; CpG island; CUP domain: Kringle domain.
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/note="FLAM_C repeat: matches 1. .133 of consensus"
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Catarrhini; Hominidae:
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/note="AluY repeat: matches 1. .29<sup>£</sup>
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/note="match: GSS: Em:B14225"
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/note="MLTIE repeat: matches
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/note="match: GSS: Em:B14184
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/organism="Homo sapiens"
/db_xref="taxon:9606"
/chromosome="22"
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                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                             Island, complete sequence.
                                                                                                                                                                                                                                                                                                          (bases 1 to 113872)
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Z95116.1 GI:2832592
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  LOCUS
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AUTHORS
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JOURNAL
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VERSION
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IVAEVITEQANLSVSAARSSKVLYVITTS"
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match: proteins: Tr. P91972 Sw. P98065 Tr. 015113 Tr. 035113
Tr. 024132 Tr. 070244 Tr. 057433 Tr. 088204 Sw. P97435
Tr. 060494 Tr. 057658 Tr. 075074 Tr. 057434 Tr. 008628
Tr. 061398 Sw. P98066 Tr. 023995 Sw. P97333 Tr. 008859
Tr. 095917*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5309. .6111
/note="LIME1 repeat: matches 5016. .5828 of consensus"
6112. .6422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4957. .5312
/note="LIMB6 repeat: matches 5808. .6175 of consensus"
7999. :6111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          matches 4987. .5472 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       273. .7944
hote="L1MD2 repeat: matches 5472. .6069 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          consensus,
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/note="MER47 repeat: matches 2224. .2323 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            matches 5828. .5952 of consensus"
.792 of consensus"
                                                                                  /note="L2 repeat: matches 2608. .2666 of consensus"
14535. .14774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .311 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          945. .8246
'note="AluSx repeat: matches 1. .302 of consensus"
                                  /note="MLTID repeat: matches 1. .242 of consensus" 4048. .4345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .308 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12111. .12286

//note="MIR repeat: matches 47. .262 of consensus"

12653. .12810

//note="AluSg/x repeat: matches 141. .292 of conser

13522. .13690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                'note="MIR repeat: matches 78. .252 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .259 of consensus"
                                                                                                                                                                                                                                                                                .21128,22078.
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/note="LIMD2 repeat: matches 6069. .6153
8368. .8426
                                                                                                                                                                                                                                h: GSS: Em:AQ119749"
.4935,8717. .8870,20796.
'note-"MER21B repeat: matches 318.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          matches 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="supported by GENSCAN
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/note="LIME1 repeat:
6502, .6965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6502, .6965
/note="LIMD2 repeat:
6966, .7272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5955. .7272
/note="AluSx repeat: 7273. .7944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3112. .6422
'note="AluSg repeat:
                                                                                                                                                                                                           1665. .4996
/note="match: GSS:
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13585 CAGATAAA 13592

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                                                                                                                                                                                                                                                                                17678. 1703. 1705. 1705. 1705. 1705. 1705. 17053. 17467 repeat: matches 13.296 of consensus. 17068. 17572. 17679. 17572 foote="'U6 repeat: matches 1.105 of consensus." 17603. 17613. 17613. 177644. 17919. 17614. 17910.
                                                                                                                                                                                                                                                                                                                                                                                                                    7.731. 18080
17911. 18080
7.0ct="1.M4c repeat: matches 10.24. .1194 of consensus" 19718. 19673
19738. 19673
19746. 20048
7.0ct="1.M4c repeat: matches 3. .298 of consensus" 19746. 20048
7.0ct="1.M4c repeat: matches 1. .301 of consensus"
                                                                                                                               15525. .15135

Anote="LiME1 repeat: matches 5353. .5867 of consensus"

15114. .16420

16421. .16731

Anote="Maly repeat: matches 1.311 of consensus"

16732. .16757

16732. .16757

16732. .16757
              repeat: matches 5918. .6175 of consensus'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .2453 of consensus"
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                                                                                                /note="AluSp repeat: matches 1. .307 of consensus"
15626. .16135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="Alusq repeat: matches 1. .313 of consensus"
26915. .27209
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .303 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat: matches 1. .295 of consensus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7.5%; Score 69.2; DB 9; Length 113872;
50.1%; Pred. No. 5.8e-07;
tye 1; Mismatches 74; Indels 0;
                                     501/. .1522

hote-*105 copies 2 mer ta 80 conserved*

5233. .15319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="47 copies 2 mer gt 90 conserved"
                                                                                repeat: matches 5867.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note="12 repeat: matches 2546.
22774. .23077
/note="AluJo repeat: matches 1.
23078. .23176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   complement(24577. .24929)
/note="match: STS: Em:256939
match: STS: Em:HS284VA9"
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                                                                       15233. .15319
/note="LIME1 re
15320. .15625
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Matches 113; Conservative
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In published

Sanderson.S., Baldwin, J., Barna, W., Bastlen, V., Beda.F.,

Birren, B., Linton, L., Nusbaum, C., Lander, E., Abraham, H., Allen, N., Anderson.S., Baldwin, J., Barna, W., Bastlen, V., Boda.F.,

Campoplano, A., Castle, A., Choepel, Y., Colangelo, M., Collins, S.,

Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S.,

Dodge, S., Domino, M., Doyle, M., Ferreira, P., Fitzhudh, W., Gage, D.,

Galagan, J., Gardyna, S., Ginde, S., Goyette, M., Horton, L., Karatas, A.,

Klein, J., LaRocque, K., Lamazares, R., Landers, T., Lehoczky, J.,

Klein, J., LaRocque, K., Lamazares, R., Landers, T., Lehoczky, J.,

Klein, J., LaRocque, K., Lamazares, R., Landers, T., Lehoczky, J.,

Klein, J., McEwan, P., McGurk, A., McKernan, K., McPheeters, R.,

Murphy, T., Naylor, J., Norman, C. H., O'Connor, T., O'Donnell, P.,

Murphy, T., Naylor, J., Norman, C. H., O'Connor, T., O'Donnell, P.,

Norman, C., Pollara, V., Raymond, C., Riley, R., Rogov, P., Rothman, D.,

Stange-Thomann, N., Stojanovic, N., Subramanian, A., Talamas, J.,

Iesfaye, S., Theodore, J. Tirrell, A., Travers, M., Trigillo, J.,

Voung, G., Zainoun, J., Zimmer, A. and Zody, M.,

Direct, Submission

Submitted (13-MAY-2000) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA

On Jun 4, 2000 this sequence version replaced gi:7798788

All repeats were identified using RepeatMasker:

Smit, A. F. A. & Green, P. (1995-1997)

Http://ftp.genome.washington.edu/RW/RepeatMasker:

Center code will repeat were version replaced gi:7798788
                                               AC068958 162061 bp DNA linear HTG 04-JUN-2-000 HOMO Sapiens chromosome 3 clone RP11-90K6 map 3, WORKING DRAFT STOUENCE, 10 unordered pieces.
                                                                                                                                                                                                                                                                                                                         Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. (bases 1 to 162061)
Birran, B. Linton, L., Nusbaum, C. and Lander, E. Homo sapiens chromosome 3, clone RPII-90K6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            • consists of 10 contigs. The true order of the pieces
• is not known and their order in this sequence record is
• arbitrary. Gaps between the contigs are represented as
• runs of N, but the exact sizes of the gaps are unknown.
• This record will be updated with the finished sequence
• as soon as it is available and the accession number will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NOTE: This is a 'working draft' sequence. It currently
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Quality coverage: 5.4 in Q20 bases; sum-of-contigs
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Sequencing vector: M13: M7815; 100% of reads
Sequencing vector: M13: M7815; 100% of reads
Chemistry: Dye-terminator B4g Dye; 100% of reads
Assembly program: Phrap: version 0.960731

Consensus quality: 15847 bases at least Q40
Consensus quality: 158445 bases at least Q30
Consensus quality: 159493 bases at least Q30
Insert size: 161161; sum-of-contigs
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                                                                                                                                                                                                                                            HIG; HIGS_PHASE1; HIGS_DRAFT.
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                                                                                                                                                                                                           AC068958.2 GI:8247874
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                                                                                                                                                                             AC068958
                                                                      LCCUS
DEFINITION
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JOURNAL
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KEYWORDS
SOURCE
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The following abbreviations are used to associate primary accession numbers given in the feature table with their source databases:
Em. EMBL: Sw.: SWISSPROT: Tr.: TREMBL: WP: WORNPEP: Information on the WORNPEP database can be found at http://www.sanger.ac.uk/Projects/C_elegans/wormpep This sequence http://www.sanger.ac.uk/Projects/C_elegans/wormpep This sequence cricomosome 10 constructed by the Sanger Centre Chromosome 10 Mapping Group. Further information can be found at http://www.sanger.ac.uk/HGP/Chr10 RPOINTIL constructed at the Roswell Park Cancer Institute by the group of Pieter de Jong. For further details see http://bacpac.med.buffalo.edu/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nilson. S.

Nilson. S.

Direct Submission

Submitted (21-Aug-2000) Sanger Centre, Hinxton, Cambridgeshire,

CB10 1SA, UK. E-mail enquiries: humquery@sanger.ac.uk Clone

requests: clonereques/fsanger.ac.uk

CD Jul 23, 2000 this sequence version replaced qi:9367364.

CD Jul 23, 2000 this sequence version replaced qi:9367364.

During sequence assembly data is compared from overlapping clones.

Where differences are found these are annotated as variations together with a note of the overlapping clone name. Note that the variation annotation may not be found in the sequence submission corresponding to the overlapping clone, as we submit sequences with only a small overlap as described above.

This sequence has been finished according to sequence map criteria as follows. An attempt is made to resolve all sequencing problems, such as compressions and repeats, but not necessarily within known annotated human repeat sequence elements (e.g. Alu). Where the sequence is ambiguous, there is an annotation using the 'unsure'
                                                                                                                                                                                                      ALLISSSI 175940 bp DNA linear PRI 21-AUG-2000 Human DNA sequence from clone RPI1-57G10 on chromosome 10 Contains a J-domain containing protein (JDP1) isoform B, the SIRTI gene (Sir2-like proteins (siruitins) type 1), part of a novel gene similar to KIAA0032, two ribosomal pseudogenes, 2 CpG islands, ALLISSS and GSSs, complete sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 175940)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="LlMA4 repeat: matches 5385, .5704 of consensus"
3372, .3682
This sequence is the entire insert of clone RPI1-57G10 The telf end of clone RPI1-474D14 is at 172652 in this sequence. Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2768. 3058
/note="AluJo repeat: matches 1. .296 of consensus"
3059. .3371
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'note*"LIMA4 repeat: matches 4946.
                                                                                                                                                                                                                                                                                                                                                                                                            AL133551.13 GI:9407715
HIG: J-domain: RPL12: RPL21; SIRT1.
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/db_xref="taxon:9606"
/chromosome="10"
/clone="RP11-57610"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /clone_lib="RPCI-11.1"
                                                                                                                       47351 GCICAIAACCAIAATTACC 47369
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14183 24347: contig of 10165 bp in length
                                                  /clone="RPI1-90K6"
/clone_lib="RPCI-11 Human Male BAC"
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/note="assembly_fragment"
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24448. .44018
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/note*"assembly_fragment"
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/note-"assembly_fragment"
1973. .7959
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1060. 14082
7note="assembly_fragment"
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/db_xref="taxon:9606"
//chromosome="3"
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Dp ò QQ 93 ò

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12947. 12436

Note=*10478. 5er-TCA repeat: matches 8. .82 of consensus. 12947. 13250

Anote=*10478 repeat: matches 1. .303 of consensus. 13848. 13947

Note=*MLT1J repeat: matches 453. .514 of consensus. 14085. 14387

Anote=*MLT1J repeat: matches 1. .304 of consensus. 14085. 14387

Anote=*MLT1J repeat: matches 1. .304 of consensus. 14626. 14378

Anote=*MLT1J repeat: matches 13. .356 of consensus. 15268. 15328

Anote=*MLT1J repeat: matches 113. .172 of consensus. 15268. 15328

Anote=*MLT1J repeat: matches 113. .306 of consensus. 15822. .16120

Anote=*MLT1J repeat: matches 1. .306 of consensus. 16150. .16463

Anote=*Alu3b repeat: matches 1. .312 of consensus. 16150. .16463

Anote=*Alu3b repeat: matches 1. .312 of consensus. 16150. .16463

Anote=*Alu3b repeat: matches 1843. .2390 of consensus. 16150. .16463
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Ynote≈"L1MA4 repeat: matches 5704. .6298 of cons≏nsus"
                                                                                 note-"LIMB5 repeat: matches 5798. .6175 of consensus"
1872. .4926
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                                                                                                                                               /note="L2 repeat: matches 2648. .2731 of consensus" 5029. .5146 //note="ML1F repeat: matches 436. .564 of consensus" 5150. .5194
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19538: 19830
/note="Alusx repeat: matches 1. 294 of consensus"
20049. 20256
                                                        4872. .4926 Lepeal: matches 5798. .6175 of conson 4020. .4926 Anote= MIR repeat: matches 204. .258 of consensus 4080. .4938 Anote= 'L2 repeat: matches 2640. .5146
                                                                                                                                                                                                       9110. 9171
/note="MIR repeat: matches 76. .146 of consensus"
9449. .9750
9750
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10489. .10938
/note="Infata" matches 1. .448 of consensus"
10489. .12442
/note="CPG island"
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/note="MLT2A repeat: matches 1. .453 of consensus"
5755. :6125.
/note="AluSx repeat: matches l. .310 of consensus"
3683. .4322
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18230. .18711
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12362. 12436
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/note="33 cop
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/note="AluSq repeat: matches 1. .301 of consensus" 35484. .35650
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Best Local Similarity 63.5%; Pred. No. 1.8e-06;
Matches 120; Conservative 0; Mismatches 66; Indels 3;
                                                                   /note="22 copies 2 mer ac 81% conserved"
22288. .22595
/note="match: GSS: Em:AQ672646"
22135. .22178
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gc-help@bcm.tmc.edu
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Muzny D. M., Adams. C., Adio-Oduola, B., Ali-Osman, F.R., Allen, C., Aludrooks, S. L., Amaratunge, H.C., Are, J.R., Panks T. Barbaria, J., Bentooks, S. L., Amaratunge, H.C., Are, J.R., Panks, T. Barbaria, J., Bowte, S., Birmag, K., Blamburg, K., Bomhin, D., Bouck, J., Bowte, S., Birmag, K., Birmag, K., Bomhin, D., Bowt, J., Bowte, S., Birmag, K., Bown, M., Bryant, H.P., Dothay, C., Carron, I.E., Carter, M., Cavazos, S.R., Chacko, J., Chaca, C., Carlen, G., Chen, C., Coyle, C., Carter, M., Cavazos, S.R., Chacko, J., Chaca, C., Coylen, G., Chen, R., Dougan, A.L., Ding, Y., Dinh, H.H., Douthwalte, K., Dagado, D., Doun, A.L., Ding, Y., Dinh, H.H., Douthwalte, K., Dagado, D., Edhaj, C., Emerling, S., Escotto, M., Falls, T., Ferraguto, D., Flagg, M., Ford, J., Escer, P., Frantz, P., Gabis, A., Gao, J., Flagg, M., Ford, J., Escer, P., Frantz, P., Gabis, A., Goo, J., Garcia, A., Garrot, T., Garra, N., Gill, R., Gorrell, J.H., Guevara, W., Garcia, A., Garner, T., Garra, N., Gill, R., Gorrell, J.H., Guevara, M., Gunaratue, P., Habes, A., Han, J., Harrandez, J.
                                                                                                                                                                                                                                                                                                                                                                       ncv/J113
Homo sapiens 12g BAC RP11-753H16 (Roswell Park Cancer Institute
Human BAC Library) complete sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
Eukaryota: Metazoa: Chordata: Craniata: Vertebrata: Euteleostomi:
Mammalia: Eutheria: Primates: Catarrhini: Heminidae: Homo.
1 (bases 1 to 160232)
tattgactacataaatgaagaaattgaggctcagatacattaagtaattctcccagggtc
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TITLE
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JOURNAL
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KEYWORDS
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SEQUENCING READ COVERAGE:Sequencing is completed to a minimum standard of double strand coverage with a minimum of 2 clones and 2 reads with no ambiguities or 2 chemistries with a minimum of 2 clones and 3 reads with no ambiguities. If the sequence quality for a region does not meet this standard, it will be indicated in the annotation as Low Coverage.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLONE LENGTH: This sequence does not necessarily represent the entire insert of this clone. Overlapping regions of clones are only sequenced and submitted once, so the sequence for the remainder of the insert may be found in the record for the adjacent clones. Overlapping clones are noted at the beginning and end of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                local mapping efforts.

Repeats are identified using RepeatMasker (A. Smit and P. Green. numbublished.) for Human and Mouse sequences.

Genes and Region of sequence similarity are identified by BLAST (Nuc. Acids Res. 25:3389-3402) similarity (expect < 1e-34) to the EST and CDNA sequences. Genes demonstrate at least two exons flanked by consensus splice sites that maintained sequence continuity across the splice junctions. Sequences that are not identical matches are annotated as similar.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         standards - estimated error rate less than 1 per 10,000 bases. Reports of lowest quality individual bases and measures of base quality are listed below. Description of the metrics can be found at URL: http://gc.bcm.tmc.edu:8088/quality.info/genbank.annotation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SISs are identified using ePCR (Genome Res. 7:541-550) searches of a local database that includes entries from dbSTS, GDB, and
                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (15.SEP-2001) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, IX 77030, USA
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                                                                                                                                                                                           Department
                                                     "(bases 1 to 160232)
Norley. K.C.
Direct Submission
Submitted (05-JUN-2001) Human Genome Sequencing Center, Departmen of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, IX 77030, USA
Baylor College of Medicine, One USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Baylor Plaza, Houston, TX 77030, USA
On Sep 15, 2001 this sequence version replaced gi:14290368.
INFORMATION: http://www.hgsc.bcm.tmc.edu/ or email
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/db_xref="taxon:9606"
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complement(8361..8418)
/rpt_family="MIR"
   of Molecular and Human Genetics,
Baylor Plaza, Houston, TX 77030,
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complement(736, 838)
/rpt_family="MIR"
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4936. :5243
/rpt_family="Alusx"
5305. :5347
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7247, ,7266
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ANNOTATION OF FEATURES:
                                                                                                                                                                                                                                                                                   4 (bases 1 to 160232)
Worley, K.C.
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1738. 4807
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EURALYOLE: Metazoa: Chordata; Craniata; Vertebrata: Euteleostomi: Homo sapiens

EURALYOLE: Wetazoa: Chordata; Catarrhini; Hominidae: Homo.

In Chases I to 207856;

Andrewalia: Eutheria; Primates; Catarrhini; Hominidae: Homo.

In Chases I to 207865;

Andrewalia: Barker, L. Amaratunge, H.C. Arta-A.R.; Barks, T. Barbaria, J. Benton, J. Binger, M. Browne, E. Brown, M. Bryant, N.P. Buhay, C. Hurch, P. Brieve, M. Browne, E. Brown, M. Bryant, N.P. Buhay, C. Hurch, P. Burket, C. Barker, C. Carten, T. F. Carter, M. Cavazos, S.R., Chacko, J. Chavez, D. Chen, G. Chen, R. Cowle, M. D. Dathorne, S.R. David, R., Douthwaite, K.J., Darper, H. Day, Cartoll, L., Dederich, D.A., Douthwaite, K.J., Darper, H. Duyan, Roth, Y. Din, H. H., Douthwaite, K.J., Darper, H. Duyan, Roth, Y. Din, H. H., Douthwaite, K.J., Darper, H. Carter, M. Carter, D. Carter, M. Garcell, J. Garzia, N. Garrell, T. Ferraqueo, D. Flago, N. Ford, J. Garza, N. Gil, R. Gorrell, J. H. Gabisi, A. Gao, J., Garzia, A. Garer, T. Garza, N. Gil, R. Gorrell, J. H. Gabisi, A. Gao, J., Garzia, A. Garza, N. Gil, R. Gorrell, J. Hart, M. Havlak, P., Hawes, A. Hollins, B. Homsi, F. Howard, S. Huber, J., Hulyk, S., Hume, J., Halle, S., Hamilton, K., Martis, C., Martis, K., Hart, M., Havlak, P., Hawes, A. Jackson, L. E., Jacobson, B., Jia, Y., Johnson, R., Jolivet, S., Jackson, L. Lid, J. Li, Z., Licharge, O., Lieu, C., Liu, J., Liu, R., Martin, R., Moser, M., Nederson, E., Woser, M., Nederson, J. Deersy, E., Maynhiney, E., Martin, R., Martin, R., Mortin, R., Martin, R., Martin, R., Martin, R., Martin, R., Moser, M., Redis, M., Reh, M., Savery, E., Peters, L., Peters
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AC078778 26-JUN-2001
Homo sapiens chromosome 12 clone RP11-968A15, WORKING DRAFT
SEQUENCE, 8 unordered pieces.
                                                                                                                                                                                      12574 CATAAGCTAGTAAGTGACTGAACTGGGATTTGAATTTAAACCTGGGCAGTCTGACTCCAA 12633
                                                                                                                                                                                                                                                                        581 cacacagctagaactggcaaagcctgggattgatccatgatcttccagcattgaagaatc 740
                      507 taaataacaacktotagtgtoaattotataottgttalggtoaagtaactgggotoagoa 566
                                                                                                        ttttacattcattqtctctttaagttctagca----atgtgaagcaggaactatgatt
                                                                                                                                                                                                                                                                                                                                                                                   12534 AGCCACGTACTTAACTGCTGCACAGTACTTCCAAAGGCCTGTCTGCAGCTT 12684
                                                                                                                                                                                                                                                                                                                                                          741 ataaatgtaaataactgcaaggccttttcctcagaagagctcctggtgctt 791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AC078778
AC078778.23 GI:14547475
HIG: HIGS_PHASE1: HIGS_DRAFT; HIGS_FULLTOP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                        267
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AC078778
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Pred. No. 4.4e-06;
0; Mismatches 127;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /rot_family="Mir"
19891. 19939
/rpt_family="L2"
complement(19940. .20067)
/rpt_family="Mir"
                                                                    complement(12407. .12662)
/rpt_family="MIR"
complement(12943. .13044)
/rpt_family="MIR"
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29165. .2920=
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complement(30082. .30375)
/rpt_family="AluJo"
30384. .30580
                                                                                                                                                                                                                   /rpt_family="Alusc"
complement(13422. 13527)
/rpt_family="MIR"
13611. 13741
                                                                                                                                                                                                                                                                                                                                                                                                                /rpt_family="Aluy"
(4638. .14855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /rpt_family="G-rich"
complement(24416. .24726)
/rpt_family="Alusx"
25766. .26985
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complement(18997, 1919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /rpt_family="(CAAAA)n"
15420. .15791
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?8800. .28858
             /rpt_family="(CCGGG)n"
11427, 111479
                                                                                                                                                                    /rpt_family="AluSq/x"
(3095, .1340?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /rpt_family="AT_rich"
15063. .15344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /rpt_family="MER117"
complement(28859, 29
                                                         /rpt_family="G-rich"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /rpt_family="Alusg"
5345. .15372
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15348. .16430
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8463. .18545
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23810. .23848
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/rpt_family="L2"
15792. 1600
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complement(14229.
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28255. .28469
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8353. .18389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rpt_family="MIR"
5012. .15051
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3829. .13962
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3977 14006
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NOTE: This is a 'working draft' sequence. It currently consists of 8 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                              Topic transport of the second 
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/db_xref="taxon:9606"
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Sybmitted (18-NOV-2001) Genome Sequencing Center, Washington
University School of Medicine, 4444 Forest Park Parkway, St. Louis,
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
114657 bp DNA linear PRI 03-JAN
Homo sapiens chromosome 4 clone RP11-162K6, complete sequence.
AC097711 AC068108
AC097711.2 GI:16974287
HTG.
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On Nov 18, 2001 this sequence version replaced gi:16304289
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Center code: WUGSC
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Pred. No. 5.7e-06;
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/organism="Homo sapiens"
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Submitted (21-OCT-2001) Genome
University School of Medicine,
Mr 63108, USA
3 (bases 1 to 114657)
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Waterston, R.H.
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/rpt_family="MIR"
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S Rieder,M.J., Carrington,D.P., Chung,M.-W., Lee,K.L., Poel,C.L.,
Yi,O. and Nickerson,D.A.

Direct Submission

E Submitted (15-JUN-2001) Molecular Biotechnology, University of
Washington, 1705 NE Pacific, Seattle, WA 9P195, USA

E Joses I to 24771)

S Rieder,M.J. and Nickerson,D.A.

D Direct Submission

D Direct Submission

E Submitted (20-JUL-2001) Molecular Biotechnology, University of
Washington, 1705 NE Pacific, Seattle, WA 9R195, USA

Sequence update by submitter
on Jul 20, 2001 this sequence version replaced gi:14583134.

To cite this work please use: SeattleSNPs. NHLBI Program for
Genomic Applications, UW-FRCRC, Seattle, WA (URL:
http://pga.mbc.washington.edu).
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Best Local Similarity 56.8%; Pred. No. 1.1e-05;
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Query Match

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Search completed: April 29, 2002, 17:16:38 Job time: 13197 sec
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/note="Organ: breast; Vector: pucl8; Site_1: Smal; Site_2: Smal; A mini-library was made by cloning products derived from ORESTES FCR (U.S. Letters Patent application No. 196. T.16 - Ludwig Institute for Cancer Research) profiles into the pUC 18 vector. Reverse transcription of tissue mRNA and cDNA amplification were performed under low
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fax: +55-11-2707001
Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome
Project. This entry can be seen in the following URL
(http://www.ludwig.org.br/scripts/gethtml2.pl?tl=&t2=CM1-BT0738-240
800-199-bl1&t3=2000-08-24&t4=1)
Seq primer: puc 18 forward
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High quality sequence stop: 316.
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(bases I to 316)

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10 (bases I, darcia Correa, R., Verjovski-Almeida, S., Briones, M.R., Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F., Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H., Brunstein, A., deoliveira, P.S., Bucher, P., Jongeneel, C.V., O'Hare, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and Simpson, A.J., Costa, F.F., M.J., Soares, F., Jongeneel, C.V., O'Hare, M.J., Soares, F., Jongeneel, C.V., Jonare, M.J., Soares, F., Brentani, R.R., Fals, L.F., de Souza, S.J. and
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                              Length 316;
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Proc. Natl. Acad. Sci. U.S.A. 97 (7), 3491-3496 (2000)
20202663
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Laboratory of Cancer Genetics
Ludvig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar, 01509-010,
                                                                                                                                                                                                                                                                                                                                                                                                                                    BE926938 316 bp mRNA linear 1071-BT0738 Homo sapiens CDNA, BE926938.1 GI:10453014
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/note="Organ: head_neck; Vector: pur18; Vector: pur18; National head.neck; National head.neck; Vector: pur18; National head.neck; National head
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Mammalia: Eutheria: Primates: Catarrhini; Hominidae; Homo.

1 (bases I to 316)

1 bias Neto.E., Garcia Correa,R., Verjovski-Almeida,S., Briones,M.R., Goldman,G.H., Carralho,A.F., Matsukuma,A., Baia,G.S., Simpson,D.H., Brunstein,A., deoliveira,P.S., Buccher,P., Jongeneel,C.V., O'Hare.

M.J., Soares,F., Brentani,R.R., Reis,L.F., de Souza,S.J. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fax: +55-11-2704922
Fax: +55-11-2707001
Fmail: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL (http://www.ludwig.org.br/scripts/gethtml2.pl?tl=&t2=CMl-HT0738-250 4400-199-bli&t3=2000-04-25&t4=1)
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                                                                                                                                              BE186013 157 22-JUN-2000 MRNA linear EST 22-JUN-2000 CM1-HT0738-250400-199-bll HT0738 Homo sapiens CDNA, mRNA sequence. BE186013.1 GI:8665197
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Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar, 01509-010, Sao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequence tags
Proc. Natl. Acad. Sci. U.S.A. 97 (7), 3491-3495 (2000)
20202663
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   362 ITCATGCTTCCTGTGGATTTTCATCCAATTAATINACCT 400
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High quality sequence stop: 316.
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ches 307; Conservative
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93.0%;
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Best Local Similarity 93.0
Matches 371; Conservative
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                                                                                                                                                                                                                                              /db_xref="taxon:9606"
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y121f09.rl Scares breast 2NbHBst Homo sapiens CDNA clone
IMAGE:158921 5' similar to contains LTR3 repetitive element ;, mRNA
                                           Fax: 455-11-2707001

Email: asimpson@ludwig.org.br

This sequence was derived from the FAPESP/LICR Human Cancer Genome

Project. This entry can be seen in the following URL

(http://wrw.ludwig.org.br/scripts/gethtml2.pl?tl=qV0st2=qV0-BT0103-

270899-008-f128t3-1999-08-278t4=1)

8Gq primer: puc 18 forward: 7

High quality sequence start: 7

High quality sequence stop: 313.
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Eukaryota; Metazoa; Chordata; Craniata: Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Hillier, L., Clark, N., Dubuque, T., Elliston, K., Hawkins, M., Holman
Rua Prof. Antonio Prudente 109, 4 andar, 01509-010, Sao Paulo-SP,
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.W., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,M., Parsons,J., Rifkin,L., Rohlfing,T., Soares,M., Tan,F., Trevaskis,E., Waterston,R., Williamson,A., Wohldmann,P. and Wilson,R.
Unpublished (1995)
                                                                                                                                                                                                              Contact: Wilson RX
Washington University School of Medicine
4444 Forest Parkway, Box 8501, St. Louis, MO 63108
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
Fax: 314 286 1810
Email: estewatson.wustl.edu
Insert Size: 516
High quality sequence stops: 307
Source: IMAGE Consortium, LLNL
This clone is available robottomy for further information.
Insert Length: 516 Std Error: 0.00
Seq primer: M13RP1
High quality sequence stop: 307.
High quality sequence stop: 307.
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Pred. No. 2.4e-41;
0; Mismatches 18; Indels 10;
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Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
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Libraries using Random Activation of Gene Expression
Libraries using Random Activation of Gene Expression
Nature Biotechnology, in press. Note that even through the
cell type indicated is HT1080, since a random activation
method was used, these sequence tags are not necessarily
expressed in HT1080 under normal circumstances.
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Mammalia: Eutheria: Primates: Catarrhini: Hominidae: Homo.
L bases: 1 to 315
Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R.,
Nagai, M.A., da Silva, W. Jr., Zaqo, M.A., Bordin, S., Costar, F. F.,
Brunstein, A., deoliveira, P.S., Bucher, P., Jongeneel, C.V., O'Hare
M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and
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Laboratory of Cancer Genetics
Ludvig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar. 01509-010, Sao Paulo-SP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \operatorname{Simpson}, A \cdot J \cdot Shotgun sequencing of the human transcriptome with ORF expressed Shotgun
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                                                                                                                                                                                                                                                 65.0%; Score 311.8; DB 10; Length 343; 93.9%; Pred. No. 5.7e-43;
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20202663
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CM1-BT0738-250400-200-c12 BT0738 Homo sapiens CDNA,
BE092421
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Location/Qualifiers
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Matches 322; Conservative
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/organism="Homo sapiens"
/db_xref="taxon:9666"
/db_xref="taxon:9666"
/clone_lib="Br0738"
/dev_stage="Adult"
/note="Organ: breast; Vector: pucl8; Site_1: Smal: Site_2:
/note="Organ: breast; Vector snade by cloning products derived
Smal: A mini-library was made by cloning products derived
from ORESIES PCR (U.S. Letters Patent application No. 196
/716 - Ludwig Institute for Cancer Research) profiles
into the pUC 18 vector. Reverse transcription of tissue
mRNA and cDNA amplification were performed under low
stringency conditions."

92 a 77 c 103 g 73 t
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mRNA sequence.
Fax: +55-11-2707001
Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome project. This entry can be seen in the following URL (http://www.ludwig.org.br/scripts/gethtml2.pl?tl=&t2=CMl-BT0738-250 400-200-cl2st3=2000-04-25st4=1)
Seq primer: puc 18 forward
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High quality sequence start: 9
High quality sequence start: 9
Location/Qualifiers
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Eukaryota: Metazoa: Chordata: Craniata: Vertebrata: E
Eukaryota: Metazoa: Chordata: Catarrhini: Hominidae:
1 (bases 1 to 313)
HGGP http://www.ludwig.org.br/ORESTES.
The FAPESYLICR Human Cancer Genome Project
Unpublished (1999)
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QVO-BIO103-270899-008-f12 BT0103 Homo sapiens CDNA,
AW176044
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301 AAATAACTAIGAGC 314
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Gene Expression
Aurora Biosciences Corp.
11010 Torreyana Road, San Diego, CA 92121, USA
11010 Torreyana Road, San Diego, CA 92121, USA
11110 Torreyana Road, San Diego, CA 92121, USA
11111 henkelgrautorablo.com
Email: henkelgrautorablo.com
Pools of cells ware isolated from a GenomeScreen(TM) library. The
Pools of cells was generated by retroviral integration of a gene
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12prary of cells was of reported sequences were immediately preceded
12prary of cells was propression.
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Henkel,G., Liyanage,M., Pratt,E., Huang,D., Riley,M., Bernardino.A.
Durick,K. and Pollok,B.
Exon-trap tags from a HL-60 GenomeScreen(TM) Library
Unpublished (2000)
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Libraries using Random Activation of Gene Expression', Nature Biotechnology, in press. Note that even though the cell type indicated is HT1080, since a random activation method was used, these sequence tags are not necessarily expressed in HT1080 under normal circumstances."
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Pred. No. 2.8e-47;
0; Mismatches 2; Indels
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AZ694036
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                                                                                                                                                                       70.38;
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Best Local Similarity 99.1
Matches 349; Conservative
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Eukaryota i Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi:
Eukaryota i Metazoa; Chordata; Catarrhini; Hominidae; Homo.

Mammalia; Eutheria: Primates; Catarrhini; Hominidae; Homo.

(Dases 1 to 343)

(Pases 1 to 343)

(Pare i Metazoa)

(Catoro, J.J., Sherf, B., Rundlett, S., Jackson, P.D., Perry, R., Catoro, J., Leventhal, C., Thornton, M., Ramachandran, R., Whittington, J., Lerner, L., Costanzo, D., McElligott, K., Boozer, S., Mays, R., Smith, E., Veloso, N., Klika, A., Hess, J., Cothren, K., Lo, K., Offenbacher, J., Danzig, J. and Ducar, M.

Creation of genome-wide protein expression libraries using random activation of gene expression

Nat. Biotechnol. 19 (5), 440-445 (2001)
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RST21669 Athersys RAGE Library Homo sapiens CDNA, mRNA sequence.
BG202313
                                                                                                                                                                                                                                                 /tissue_type="acute promyelocytic leukemia"
/telsue_type="promyeloblast"
/cell_line="HL-60"
/note="Organ: peripheral blood; vector: pAmp-1; 3' RACE of total RNA from genetrap pools: shotgun clone in pAmp-1 and used to transform DH5-alpha competent bacteria."
88 c 56 g 94 t
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                                      /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone_lib="Genetrap HL-60 Human Promyelocytic Leukemia
Library"
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ilarity 100.0%; Pred. No. 2.5e-43;
Conservative 0; Mismatches 0;
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High quality sequence stop: 343
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Tel: 216 431 9900
Fax: 216 361 9596
Email: scain?athersys.com
Location/Qualifiers
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Athersys, Inc.
              FEATURES
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Enkaryota: Metazoa: Chordata: Craniata: Vertebrata: Euteleostomi: Mammalia: Eutheria: Primates; Catarrhini; Hominidae: Homo.

1 (bases 1 to 391)

Harrington, J. J., Sherf. B., Rundlett, S., Jackson, P. D., Perry, R., Cain, S., Leventhal, C., Thornton, M., Ramachandran, R., Whittington, J. Leventhal, C., Thornton, M., Ramachandran, R., Whittington, I. Lerner, L., Costanzo, D., McElligott, K., Boozer, S., Mays, R., Smit, J., Lonarig, J. and Ducar, M. Cothren, K., Lo, K., Offenbacher J., Danzig, J. and Ducar, M. Creation of genome-wide protein expression libraries using randor activation of gene expression

12122151
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/db_xref="taxon:9606"
/clone_lib="xhersys RAGE Library"
/cell_line="HI1080"
/note="See 'Creation of Genome-wide Protein Expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          391 bp mRNA linear EST 21-APR-
Athersys RAGE Library Homo sapiens CDNA, mRNA sequence.
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                                                                                            Score 358.6; DB 10; Length 376;
Pred. No. 8.1e-51;
0; Mismatches 9; Indels 0;
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Athersys, Inc.
3201 Carnegie Ave, Cleveland, OH 44115, USA
1e1: 216 431 9900
Fax: 215 361 9596
Email: Scain@athersys.com
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High quality sequence stop: 391.
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97.68;
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Best Local Similarity 97.6'
Matches 364; Conservative
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 375)
Harrington, J.J., Sherf, B., Rundlett, S., Jackson, P.D., Perry. R.,
Cain, S., Leventhal, C., Thornton, M., Ramachandran, R., Whittington, J.,
Lerner, L., Costanzo, D., McElligott, K., Boozer, S., Ways, R., Smith,
J., Danzig, J. and Ducar, M. Hess, J., Cothren, K., Lo, K., Offenbacher,
J., Danzig, J. and Ducar, M. Creation of geneme wide protein expression libraries using random activation of gene expression.
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/db_xref='taxon:9606"
/db_xref='taxon:9606"
/cloom_lib='Athersys RAGE Library."
/cell_line="HI1080"
/nota='See 'Creation of Genome-xide Protein Expression
Libraries using Random Activation of Gene Expression,
wature Biotechnology, in press. Note that even though the
cell type indicated is HI1080, since a random activation
method was used, these sequence tags are not necessarily
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                               Length 454;
                                                                  Indels
                                 DB 10;
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Tel: 216 431 9900
Fax: 216 361 9596
                                                   3.1e-53;
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                                                                  0; Mismatches
                               77.7%; Score 372.8;
99.5%; Pred. No. 3.10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Email: scainfathersys.com
High quality sequence stop: 376.
Location/Qualifiers
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                                  Query Match
Best Local Similarity 99.5
Matches 374; Conservative
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Eukaryota; Metazoa: Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa: Chordata; Catarrhini; Hominidae; Homo.

1 (bases 1 to 402)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicqap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                                                                                                                       Contact: Robert Strausberg, Ph.D.
Email: cgapbs-rémail.nih.gov
This clone is available royalty-free through LLNL; contact the
TMAGE Consortium (infoélmage.llnl.gov) for further information.
Insert Length: 510 Std Error: 0.00
Seq primer: -40ml3 fwd. ET from Amersham
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99.3%; Pred. No. 2.7e-57;
Live 0; Mismatches 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                   quality sequence stop: 398.
Location/Qualifiers
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Unpublished (1997)
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399; Conservative
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Best Local S
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Marie Commission

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/dev_stage="Adult"
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//note ORESTES PCR (U.S. Letters Patent application No. 196
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//note ORESTES PCR (U.S. Letters Patent application of tissue many and convariation were performed under low
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Fax: 455-11-2707001

Fax: 455-11-2707001

Email: asinpsonfeludwig.org.br

This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL (http://xxw.ludwig.org.br/scripts/gethtml2.pl?tl=1L2&t2=1L2-BT0807-041000-175-G03&t3=2000-10-04&t4=1)
Seq primer: puc 18 forward
High quality sequence stop: 421.
                                                                                                                                                                                                                                                                                     HF/42809 423 bp mRNA linear EST 10-JAN-2001
112-BF0807-041000-176-G03 BF0807 Homo sapiens CDNA, mRNA sequence.
BF742809
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EURSaryota, Metazoa: Chordata; Craniata; Vertebrata; Euteleostomi:
EURSaryota, Metazoa: Chordates; Catarrhini: Hominidae: Homo.

1 (bases 1 to 423)
Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R.,
Magai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F.,
Goldman, G.H., Carvalho, A.F., Matsukuma, A., Bala, G.S., Simpson, D.H.,
Brunstoin, A., deoliveira, P.S., Bucher, P., Jongeneel, C.V., O'Hare
M.J., Soares, F., Brentani, R.R., Resis, L.F., de Souza, S.J. and
Simpson, A.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rue Prof. Antonio Prudente 109, 4 andar, 01509-010, Sao Paulo-SP,
Brazil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Shotgun sequencing of the human transcriptome with ORF expressed sequence tags proc. Matl. Acad. Sci. U.S.A. 97 (7), 3491-3496 (2000)
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/ Organism="Homo sapiens"
/ Organism="Homo sapiens"
/ Ab_xref="Gab:1270181"
/ Ab_xref="Gab:1270181"
/ Ab_xref="Gab:1270181"
/ Ab_xref="Gab:1270181"
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              Hillier L., Clark, N., Dubuque, T., Elliston, F., Hawkins, M., Holman, M., Kucaba, T., Le, M., Lennon, G., Marra, M., Parsons, J., Rifkin, L., Rohlfing, T., Soares, M., Tan, F., Trevaskis, E., Waterston, R., Williamson, A., Wohldmann, P. and Wilson, F., Trevaskis, E., Waterston The Washu-Merck EIP Project

Contact: Wilson RK
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
Fax: 314 286 1800
Fa
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ilarity 99.5%; Pred. No. 7.5e-51;
Conservative 0; Mismatches 1;
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Location/Qualifiers
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AW070916 420 bp mRNA linear EST 20.OCT-2000 xa31d01.x1 NCI_CGAP_Br18 Homo sapiens cDNA clone IMAGE:2560385 3' similar to contains element TAR1 repetitive element; mRNA
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutelenstomi;
Hammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 420)
NCI-CGAP http://www.ncbi.nlm.nih.go://ncicqap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                                                                                                                                                           61 GTACTCTTGGGAGTTTCCATCTTTCTGGTCTCTGCCCAGAATCCGACAACAGCTGCTCA 120
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                                                                                                                                                                                  Score 422.4: DB 10:
Pred. No. 1.5e-61:
0: Mismatches 1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov
                                                                                                                                      81 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AW070916.1 GI:5025914
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Best Local Similarity 99.5%;
Matches 434; Conservative
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/ Organism."Homo saplens"

/Organism."Homo saplens"

/Ob xref="taxon:9606"

/Clone='Inde:2668385"

/Clone=1ib="NOL_CGAP_Br18"

/Lissue_type='four pooled high-grade tumors, including two primary tumors and two metastatic to ovary"

/Inde_host="DH108"

/note="Organ: breast: Vector: pCMV-SPORT6; Site_1: Sal1:

Site_2: NOL1: Cloned unidirectionally. Primer: Oligo dT.

Library constructed to Life Technologies."

a 76 c 116 g 109 t
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 432)
                                                               Genome Sequencing Center
Clone distribution information can
Clone distribution NCI-CGAP clone distribution information can
found through the I.M.G.E. Consortium/LINL at:
www-bio.llnl.gov/bbrp/image/image.html
Insert Length: 545 Std Error: 0.00
Seq primer: -400P from Gibco.
Location/Qualifiers
Tissue Procurement: Chris Moskaluk, M.D., Ph.D., Michael R. Emmert-Buck, M.D., Ph.D. cDNA Library Preparation: Life Technologies, Inc. coNA Library Arrayed by: Christa Prange. The I.M.A.G.E. Consortium DNA Sequencing by: Washington University
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    418
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Pred. No. 7.5e-61;
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ilarity 99.8%;
Conservative
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436 bp mRNA linear EST 16-OCT-1996 2677912.rl Soares_fetal_heart_NDHH19W Homo sapiens cDNA clone lMACE:344806 5' similar to contains element MER40 repetitive element; mRNA sequence. W72837 W72837 EST 16:1382813
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota: Metazoa: Chordata: Craniata; Vertebrata: Euteleostomi: Banmalia: Eutheria: Primates; Catarrhini; Hominidae: Homo.
Mammalia: Eutheria: Primates; Catarrhini; Hominidae: Homo.
I (bases 1 to 436)
Hillier, L., Clark, N., Dubuque, T., Elliston, K., Hawkins, M., Holman, M., Kucaba, T., Le, M., Lennon, G., Marra, M., Parsons, J., M., Hultman, M., Kucaba, T., Le, M., Tan, F., Trevaskis, E., Waterston Rfffin, L., Rohlfing, T., Soares, M., Tan, F., Trevaskis, E., Waterston The Washu-Merck EST Project
Unpublished (1995)
                           AG197186 RST16424
BEG197186 RST16424
BEG18519 PM3-BN017
BEG183176 RST2047 A
BG192597 RST11712
BG207555 RST20017
A1905624 CM-BT094-
A1905637 LL-BT094-
A1905637 LL-BT094-
A1905637 UL-BT094-
B127948 UI-R-DA0-
B127948 UI-R-DA0-
B1279591 UI-R-DA0-
B1279513 UI-R-DA0-
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B1279513 UI-R-DA0-
B1279514 UI-R-DA0-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Email: est@watson.wustl.edu
This clone is available royalty-free through LLNL ; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
Insert Length: 508 Std Error: 0.00
Seq primer: mob.REGA+ET.
AI905687 IL-BT095-
AW294149 UI-H-BI2-
AW291950 UI-H-BI2-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Wilson RK
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
Fax: 314 286 1810
Email: est@watson.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /dev_stage="19 weeks"
/lab_host="DH10B (ampicillin resistant)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /clone_lib="Soares_fetal_heart_NbHH19W"
/sex="unknown"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Homo sapiens"
/db_xref="GDB:1270181"
/db_xref="taxon:9606"
/clone="!MAGE:344806"
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BG218084 RST37810

BG185269 RST4208 A

AZ694036 AST-248BG

BC202313 RST21669

BC202313 RST21669

AM77604 QVID-BT010

RY5793 Y121609.r1

BE186013 CM1-HT073

BE25638 CM1-HT073

AA440669 EST45219

AI127172 qb39308.x
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955.015 Million cell updates/sec
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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Description
                                                                                      ; Search time 6783.7 Seconds
                                                                                                                                                     Compugen Ltd
                                                                                                                                                                                                       13736207 seqs, 6748477542 residues
                                                                                                                                                                                                                            Jotal number of hits satisfying chosen parameters:
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A1139456
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AI127172
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R75793
                               GenCore version
Copyright (c) 1993 - 2000
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Maximum Match 100%
Listing first 45 summaries
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Gapop 10.0 , Gapext 1.0
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RCSNSSEFSHRDGKLLPLKVTHTILCWGSTRLRIDVRKSMQVKNTADKRLVIRLGIOG
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SSERKRROHSRSRSSERRRRORSPHRYNPPPKIINYVQVPPQDFYGMSGMOOSFGYO
RLPRPPFFPPAPYRYRQRPPFIGVPRFGYRNAGRPPY"
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sequence differs from the published sequence for this
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Best Local Similarity 54.1%; Pred. No. 9.1e-08;
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Chadas, M.D., Celniker, S.E., Gibbs, R.A., Rubin, G.M. and Venter, C.J.

Direct Submission
Submitted (21-MAR-2000) Celera Genomics, 45 West Gude Drive.

Rockville, MD, 195A
On Oct 9, 2000 this sequence version replaced gi:7294043.

1 . 280887
Corganism="Brosophila melanogaster"

Ab xref="taxon:7227"
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    VERSION
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Rubin, G.M.
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ORIGIN
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                                                                                                                                                                                                                                                                                                                                                                       TITLE
JOURNAL
                                                                                                                   REFERENCE
AUTHORS
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JOURNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCING READ COVERAGE:Sequencing is completed to a minimum standard of double strand coverage with a minimum of 2 clones and 2 treads with no ambiguities or 2 chemistries with a minimum of 2 clones and 3 treads with no ambiguities. If the sequence quality for a region does not meet this standard, it will be indicated in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ó:
                                                                                                                                                                               local mapping efforts.

Repeats are identified using RepeatMasker (A. Smit and P. Green, numbblished.) for Human and Mouse sequences.

Genes and Region of sequence similarity are identified by BLAST (Nuc. Acids Res. 25:3389-3402) similarity (expect < la-34) to the EST and CDNA sequences. Genes demonstrate at least two exons flanked by consensus splice sites that maintained sequence continuity across the splice junctions. Sequences that are not identical matches are annotated as similar.
                                                                                                                             searches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QUALITY OF INDIVIDUAL BASES:This sequence meets stringent quality standards – estimated error rate less than 1 per 10,000 bases. Reports of lowest quality individual bases and measures of base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Drosophila melanogaster

Bukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;

Bukaryota; Medazoa; Arthropoda; Diptera; Brachycera;

Pteryota; Neophera: Endopterygota; Diptera; Brachycera;

Muscomorpha: Ephydroidea; Drosophilidae; Drosophila.

1 (bases 1 to 186002)

1 (bases 1 to 186002)

1 (bases 1 to 186002)

2 (bew.M. Baxter, E., Blazej, R.G.

Butenhoff.C., Champe, M., Chavez, C., Chew.M., Ciesiolka, L.,

Boyle, C.M., Farfan, D. E., Gallo, R., Goorge, P.A., Harris, N. L.,

Hinkle, A., Hoskins, R.A., Houston, K.A., Hurrasti, S. R., Karra, K.,

Kearney, L., Kim. E., Lee, B., Lewis, S., Li, P., Ling, H.,

Moshrefi, A.R., Moshrefi, M., Nixon, K., Parleb, J.M., Park, S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            52991 ATGATCTCCACGCGAAGCGGCCTACAAGCTACTGGCCCAATGCAATTGCAATG 52932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          490 aggacgatocigticggaaggcctataagtatctagctgctctgcacgagaactgcagcc 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              310 cccggctggcctacacccagcgcatcctggagatcgtgggcaacatccggaagcagaagg 369
                                                                                                                           STSs are identified using ePCR (Genome Res. 7:541-550) sears of a local database that includes entries from dbSTS, GDB, and
the insert may be found in the record for the adjacent clones. Overlapping clones are noted at the beginning and end of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 77.6; DB 3; Length 181437;
Pred. No. 9.1e-08;
0; Mismatches 134; Indels 0:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         550 agctcatccagaccatcgaggacaccatcatgcggagagttcgaga 501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         annotation as Low Coverage.
                                                                                                           ANNOTATION OF FEATURES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12.9%;
54.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 54.1 Matches 158; Conservative
                                                            Features listing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            fruit fly.
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AC006933/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
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KEYWORDS
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280887 bp DNA linear INV 06-OCT-2000 Drosophila melanogaster genomic scaffold 142000013386050 section 42 of 54, complete sequence.
   pfeiffer.B., Poon,L., Richards,S., Sequeira,A., Sethi.H.,
Svirskas,R.R., Wan,K.H., Webster,D., Woolley,P., Yang,S., Yee,M.,
Zieran,L.L. and Rubin,G.M.
Sequencing of Drosphila Chromosome 3L, region 73B7-73D5
Sequencing of Drosphila Chromosome 3L, region 73B7-73D5
Lupublished (1998)
Lupublished (1998)
Celniker,S.E., Adbayani,A., Arcaina,T.T., Baxter,E., Blazej,R.G.,
Butenhoff.C., Champe,M., Chavez,C., Chev,M., Clesiolla, N.L.,
Butenhoff.C., Champe,M., Chavez,C., Chev,M., Harris, N.L.,
Hoskins,R.A., Houston, K.A., Hummasti,S.R., Karra,K., Kearney,L.,
Kim,E., Lee,B., Lewis,S., Li,P., Lomotan,M.A., Mazda,P.,
Noshrefi,A.R., Moshrefi,M., Nixon,K., Pacleb,J.M., Park,S.,
Pfeiffer,B., Poon,L., Sequeira,A., Sethi,H., Snir,E.,
Svirskas,R.R., Wan,K.H., Weinburg,T., Zhang,R., Zleran,L.L. and
                                                                                                                                                                                                                                                                                                                                                                                                                                Direct Submission
Submitted (02-MAR-199) Drosophila Genome Center, Lawrence Berkeley, Submitted (02-MAR-199) Drosophila Genome Center, Lawrence Berkeley, CA 94720, USA
Gequence submitted by:
Sequence submitted by:
Berkeley Drosophila Genome Project
Berkeley Drosophila Genome Project
Berkeley, CA 94720
For further information about this sequence, including its location and relationship to other sequences, please visit our sequence archive Web site (http://www.fruitfly.org/sequence/) or send email to bdgp@fruitfly.box.nifly.edu.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Richards,S.,'Sequeira,A., Sethi,H.,
1., Webster,D., Woolley,P., Yang,S., Yee,M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   310 cccggctggcctacacccagcgcatcctggagatcgtgggcaacatccggaagcagaagg 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /mar-"BAC BACK18E21 (D458)"
/clone_lib="RPCI-98 (Roswell Park Cancer Institute Drosophila melanogaster BAC library, partial EcoRI pBACe3:6)"
a 38636 c 39135 g 54002 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ctgggaagctggaccggacgtttgcggtgactgatgagcttgtgttcaaggatgccaaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 370 aagagatcaccaagatcttgtctgatacgaaggagcttcagaaggaaatcaactccctat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           35423 AGCIGGIGGAGIGCGICTCCCTCAGGGAAACGIGACCAAGGAGATCCGCGA 35372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 77.6; DB 3; Length 186002; Pred. No. 9.1e-08;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Mismatches 134;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /strain="y; on bw sp'/db_xref="taxon:7227"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /map="73B7-73D6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /chromosome="3L"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ouery Match
Best Local Similarity 54.1%;
Matches 158; Conservative
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REFERENCE AUTHORS TITLE REFERENCE REFERENCE AUTHORS JOURNAI JOURNAI JOURNAL. BUCCH, P., BUTEVA, M., BIOWN, M., ETYGHL, N. F., BUITGY, C.,
BUTCH, P., BUTKELL, C., BUTTELL, K.L., BYTCH, N. C., CATTON, I.F.,
CATTON, F., BUTTELL, K.L., BYTCH, N. C., CATTON, I.F.,
CARLON, E., Chear, G., Chear, G., Chen, G., Chen, G., Chen, E.,
COYLE, M.D., Dathorne, S.R., David, R., Davila, M.L., Davis, C.,
COYLE, M.D., Dathorne, S.R., David, R., Davila, M.L., Davis, C.,
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COYLE, M.D., Dathorne, S.R., David, R., Davila, M.L., Davis, C.,
COYLE, M.D., Dathorne, S.R., David, R., Davila, M.L., Davis, C.,
Davy-Carroll, L., Dederich, D.A., Delaney, K.R., Delgado, O.,
Davy-Carroll, L., Dederich, D.A., Delaney, K.R., Delgado, O.,
Davy-Carroll, L., Ding, Y., Dinh, H.H., Douthwaite, K.J., Draper, H.,
Dugan-Rocha, S., Durbin, K.J., Earnhart, C., Edgar, D., Elwards, C.C.,
Elhaj, C., Escotto, M., Falls, T., Ferraguto, D., Flagg, N., Ford, J.,
Eshaj, C., Escotto, M., Falls, T., Ferraguto, D., Elagar, D., Elwards, C.C.,
Elhaj, C., Escotto, M., Falls, T., Ferraguto, D., Flagg, N., Ford, J.,
Eshaj, C., Harris, C., Harris, A., Ganraer, D., Elward, A.,
Hamilton, K., Harris, C., Harris, A., Gunaratne, P., Hakes, A.,
Hernandez, J., Hernandez, O., Hodyson, A., Hoyues, M., Holloway, C.,
Hernandez, J., Homsi, F., Hodyson, A., Hoyues, M., Holloway, C.,
Hernandez, J., Howard, S., Huber, J., Hulyk, S., Hare, J.,

Icents, J., Harris, C., Kratovic, J., Kureshi, A., Landry, N., Leal, B., Levis, L.C.,
Kovar, C., Kratovic, J., Kureshi, A., Landry, N., Leal, B., Levis, L.C.,
Kovar, C., Kratovic, J., Kureshi, A., Landry, N., Leal, B., Levis, L.C.,

Lewis, L., Li, J., Li, C., Licharde, O., Lieu, C., Liu, J., Liu, W.,

Lewis, L., Li, J., Li, C., Licharde, O., Lieu, C., Liu, J., Liu, W.,

Martinez, E., Massey, E., Mawinney, E., McLeod, M.P., Macdor, M.,

Martinez, E., Massey, E., Mawinney, E., McLeod, M.P., Macken, N.,

Nogue, N., Nguyen, N., Neger, M., Neleod, N.P., Macken, N.,

Newson, I., Scherer, S., Scott, G., Shen, H., Shooshtari, N.,

Tang, H., Tansey, J., Taylor, C., Taylor, worley K.C., Adams.C., Adio-oduola, B., Ali-osman, F.R., Allen, C., Alsbrooks, S.L., Amaratunge, H.C., Are, J.R., Banks, T., Barbaria, J., Benton, J., Bimage, K., Blankenburg, K., Bonnin, D., Bouck, J., Bonte, S., Birbaye, K., Blankenburg, K., Bonnin, D., Bouck, J., Bonte, S., Birbaye, K., Bonte, D., Bonte, D., Bund, C., Carron, T.F., Burch, P., Burkett, C., Burrell, K.L., Byrd, N.C., Carron, T.F., Charles, S., R., Chacko, J., Chavez, D., Chen, G., Chen, R., Chen, R., Charles, C., Cleveland, C.D., Cox, C., Chen, Z., Chowdhry, I., Christopoulos, C., Cleveland, C.D., Cox, C., Coyle, M.D., Dathorne, S.R., David, R., Davila, M.L., Davis, C., Coyle, M.D., Dathorne, S.R., David, R., Davila, M.L., Davis, C., Denn, A.L., Ding, Y., Dinh, H.H., Douthwaite, K.J., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H., Douthwaite, K.J., Draper, H., Dugan-Rocha, S., Durbin, K.J., Earnhart, C., Edgar, D., Edwards, C.C., Dugan-Rocha, S., Durbin, K.J., Earnhart, C., Edgar, D., Edwards, C.C., Elhaj, C., Escotto, M., Falls, T., Ferraguto, D., Flagg, N., Ford, J., Foster, P., Frantz, P., Gabisi, A., Gao, J., Garcia, A., Garner, T., Garza, N., Gill, R., Gorrell, J.H., Guevara, W., Gunaratne, P., Hale, S., Hernandez, O., Hadgson, A., Hogues, M., Holloway, C., Hollins, B., Homsi, F., Howard, S., Huber, J., Hulyk, S., Hume, J., Jondah, S., Katlsson, E., Kelly, S., Klan, U., King, L., Korvah, J., Kovah, J., Liu, M., Submitted (22-Spp-1999) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA Worley, K.C. Direct Submission Worley, K.C., Adams, C., Adio-Oduola, B., Ali-osman, F.R., Allen, C., Alsbrooks, S.L., Amaratunge, H.C., Are, J.R., Banks, T., Barbaria, J. Benton, J., Bimage, K., Blankenburg, K., Bonni, D., Bouck, J., Bowis, S., Brieva, M., Brown, M., Bryant, N.P., Buhay, C., Bowis, S., Brieva, M., Brown, M., Bryant, N.P., Buhay, C., Buhay, C. Direct Submission
Submitted (10-NOV-2001) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, Gna Baylor Plaza, Houston, TX 77030, USA
4. (bases 1 to 181437) (bases 1 to 181437) 1 to 181437)

> Peery, J. Perez, L. Peters, L., Pickens, K., Primus, E., Pull. L., Quiles, M., Ren, Y., Rives, M., Rojas, A., Rojutokan, I., Rolfe, M., Ruiz, S., Savery, G., Scherer, S., Scott, G., Shen, H., Shooshtari N., Sisson, I., Scodergren, E., Sonaike, T., Sparks, A., Stanley, H., Sisson, H., Sution, A., Svatek, A., Tabor, P., Tanderisa, A., Tamerisa, K., Tang, H., Tansey, J., Taylor, C., Taylor, T., Telfrod, B., Thomas, N., Usmani, K., Vasquez, L., Vera, V., Villalon, D., Vinson, R., Wall, R., Wang, S., Walliamson, S., Walliamson, A., Walliamson, S., Walliamson, S., Walliamson, S., Walliamson, A., Walezoyk, R., Wooden, S., Walliamson, S., Loulseged, H. Lozado, R.J., Lu, X., Lucier, A., Lucier, R., Luna, R.,
> Maj, Mahesiwari, M., Mapua, P., Martin, R., Martindale, A.,
> Martinez, E., Massey, E., Mawhiney, E., McLecd, M.P., Meador, M.,
> Mel, G., Mettker, M., Miner, G., Miner, Z., Mitchell, T., Mohabbat, K.,
> Margan, M., Norris, S., Moser, M., Neal, D., Mewtson, J., Neutson, N.,
> Maygen, A., Hguyen, M., Nickerson, E., Mwokenkwo, S.,
> Ogath, M., Okadonu, G., Oragunye, N., Oviedo, R., Prinus, E., Put. L.,
> Peters, J., Peters, L., Pickers, R., Prinus, E., Put. L.,
> Peters, J., Peters, L., Pickers, R., Prinus, E., Put. L.,
> Peters, J., Peters, L., Pickers, R., Prinus, E., Put. L.,
> Peters, J., Peters, L., Pickers, R., Prinus, E., Put. L.,
> Peters, J., Peters, L., Pickers, R., Prinus, E., Put. L.,
> Peters, J., Peters, L., Pickers, R., Prinus, E., Put. L.,
> Politics M., Peters, L., Pickers, R., Prinus, E., Put. L.,
> Politics M., Peters, L., Peters, L., Pickers, R., Pickers, Put. L.,
> Politics M., Peters, L., Pe Submitted (2y-DEC-2001) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA Direct Submission (bases 1 to 181437) Mohabbat,K.,

REFERENCE

JOURNAL ITILE

AUTHORS

CC 5 (bases 1 to 181437)

RS Worley, K.C., Adams, C., Adio-Oduola, B., Ali-osman, F.R., Allen, C., Alsbrooks, S.L., Amaratunge, H.C., Are, J.R., Banks, T., Barbaria, J., Barbaria, J., Bimage, K., Blankenburg, K., Bonnin, D., Bouck, J., Benton, J., Bimage, K., Blankenburg, K., Bonnin, D., Bouck, J., Benton, J., Bimage, K., Blankenburg, K., Bonnin, D., Bouck, J., Benton, J., Bimage, K., Blankenburg, K., Bonnin, D., Bouck, J., Bovia, K., Bervan, K., Carzoo, T.F., Burch, P., Burkett, C., Brown, E., Brown, E., Brown, E., Brown, E., Brown, K.D., Chargo, C. Chen, R., Carcia, R., Carcon, T.F., Charco, J., Charley, K.R., David, R., Davila, M.L., Day, C., Chen, R., Coyle, M.D., Lathorne, S.R., David, R., Davila, M.L., Day, C., Chen, R., Coyle, M., D., Lathorne, S.R., David, R., Davila, M.L., Day, C., Chen, R., Coyle, M., Dolaney, K.R., Delgado, O., Dany, Carcial, A., Carcia, A., Sisson, I., Scdergren, E., Sonaike, T., Sparks, A., Stanley, H., Stone, H., Sutton, A., Svatek, A., Tabor, P., Iamerisa, A., Tamerisa, Tangy, H., Tansey, J., Taylor, C., Taylor, T., Telfrod, B., Thomas, M., Thomas, S., Usmani, K., Vasquez, L., Vera, V., Villalon, D., Vinson, F., Wall, R., Warg, S., Ward, Moore, S., Warren, K., Washington, C., Wattington, S., Williams, G., Willamson, A., Wleczyk, R., Wooden, S., Worley, K., Wu, C., Wu, Y.F., Zhou, J., Zorrilla, S., Nelson, D., Weinstock, G., and Gibbs, R. Submission Tamerisa, K., Nelson, D. Vinson, R.

Submitted (03-JAN-2002) Human Genome Sequencing Center, Lepartment of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA On Nov 10, 2001 this sequence version replaced gi:8101327. INFORMATION: http://www.hgsc.bcm.tmc.edu/ or email

COMMENT

JOURNAL TITLE

CLONE LENGTH: This sequence does not necessarily represent the entire insert of this clone. Overlapping regions of clones are only sequenced and submitted once, so the sequence for the remainder of

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VERSION
KEYWORDS
                                                                                                                                                                                        RESULT 1
AC014936
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                                                       ORGANISM
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                                                                                                                                                                                                                                                                                            agotoatocagaccatogaggacacaggcaccatcatgcgggaggttcgaga 601
                                                                                                                                                                                                                                                                                                                                  ATGATCTCCACGCGAAGCGGGCCTACAAGCTACTGGCCCAACTGCACGCCAATTGCAATG 1534
                                                                                                                                                                                                                                                                                                                                                     aggacgatgctgttcggaaggcctataagtatctagctgctctgcacgagaactgcagcc
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                158;
                                                                                    pieces.
AC014936
AC014936.1 GI:64
HTG: HTGS_PHASE2.
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Location/Qualifiers
Drosophila melanogaster
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Diptera; Srachycera;
Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and relationship to other sequences, please visit our Web site (http://fruitfly.berkeley.edu) or send email to
                                                                                                                                                         Drosophila melanogaster,
                                                                                                                                                                           AC014936
                                                                       fruit fly.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EVQIDGEKLKNVLTSLQQITGD1QKFEQHIQELQEQIRAVEQTNAGS"
1 516 c 472 g 320 t
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LLKSTOSKRIITIOOMODYRKPILESLEKIYAKEAOEVOGIRRSJEPGLESELLÄKTO
OHNELNATLKSASGSLAPKEYTRIHEEIGNIRKORADIKVÜDDTROLOKOLNVVG
AQLQROFNYTDDLLFQSAKHDLHAKRAYKLLAOLHANCNELVECVSLIGNVTKQIREL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IEQLPRERQGTEDGASKSQTLSHRQLLERKIRKELAQQL&TPWPPQFARSVGHRKLLG
CSSLGIEFRPNINLNIPSANPEERSKEQQQYLDQQAPNLFQQISSTSTDLIASVLHKN
ELDRWGQILPDSTLIFVSSEDPAPPLIPTVKPPASAEKEEEPSPIQELSDQVQELRVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="alignment with genomic scaffold /db_xref="flybase:fbg,.0036671"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Drosophila
/strain="y; cn bw sp"
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                                                                                                       GI:6436399
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Pred. No. 9.4e-08;
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                    Wheeler, D., Weinstock, G.,
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20971 c 21000 g 27426 t
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Pred. No. 9.1e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches 134;
                      Gibbs, R. and
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16088 ATGATCTCCACGCGAAGCGGCCTACAAGCTACTGGCCCAACTGCACGCCAATTGCAATG
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         Muzny, D., Scherer, S., Adams, M.D., Holt, R.A., Evans, C.A.,
Gocayne, J.U., Tabor, P., Williamson, A., Honsi, F.H.,
Dugan, Hocha, S.D., Sodergren, E.S., Hodgson, A.H., Chen, R.C.,
Ayele, M.A., Scott, G.S., Worley, K.W., Amamatides, P.G., Brandon, R.G.,
Ayele, M.A., Scott, G.S., Worley, K.W., Amamatides, P.G., Brandon, R.G.,
Rogers, Y., An, H., Baldwin, D., Beeson, K.Y., Brown, M., Buhay, C.,
Busam, D.A., Center, A., Chen, G., Chen, Z., Clerc-Blankenburg, K.,
Davenport, L.B., Dietz, S.M., Ding, Y., Dodson, K., Doup, L.E.,
Draper, H., Emery-Cohen, A., Ferriera, S., Garg, N.D.S., Houck, J.,
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Liu, W., Mattei, B., McIntosh, T.C., Morgan, M., Moy, M., Murphy, B.,
Nelson, K.A., Ndassa, Y., Nguyen, N., Perez, L., Pittman, G.S., Puri, V.,
Scheeler, F., Shen, H., Strong, R., Tector, C., Wang, Q., Williams, S.M.,
Xiang, J., Zaveri, J.S., Zhou, J., Zorrilla, S., Smith, H.O.,
Wheeler, P., Waisser, C., G. Cibbe, D. and Vonter, T.C.
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1 (bases 1 to 181437)
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Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neophera; Endopterygota; Diptera; Brachycera;
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* This sequence will be replaced

* by the finished sequence as soon as it is available and . the accession number will be preserved.
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RP98-9A23 (Roswell Park Cancer
Venter, J.C.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disruption of a new forkhead/winged-helix protein, scurfin, resurts in the fatal lymphoproliferative disorder of the scurfy mouse Nat. Genet. 27 (1), 68-73 (2001)
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Yasayko, S.A., Wilkinson, J.E., Galas, D., Ziegler, S.F. and
Ramsdell, F.
                                                                                                                                                                                                       Direct Submission Submitted (15-JUN-2000) Genomics, St. SE, Bothell, WA 98021, USA
                                                                                                                                                                                                                                                                                                                       2 (bases 1 to 3739)
Brunkow,M.E., Jeffery,E.W., Hjerrild,K.A., Paeper,B.W., Wilkinson,J.E., Ziegler,S.F. and Ramsdell,F.
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/product="scurfin"
/product="scurfin"
/protein_id="aa633605.1"
/protein_id="aa633
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NMRPPPTYATLIRWAILEAPERORTLNEIYHWETRMFAYFRNHPATWKNAIRHNLSI.H
KCEVRVESEKGAVWTVDEFEEFRKKRSORPNKCSNPCP*
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/db_xref="taxon:10090"
/chromosome="X"
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/db_xref="taxon:10090"
/chromosome="X"
                                                                               ∕organism≖"Mus musculus"
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Pred. No. 2.8e
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les 13;
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Query Match
Best Local Similarity
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Drosophila melanogaster GH12970 full length cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (06-OCT-2001) Berkeley Drosophila Genome Project, Lawrence Berkeley National Laboratory, One Cyclotron Road, Berkeley, CA 94720, USA
Sequence Submitted by:
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Nunco,J., Pacleb,J., Paragás,V., Park,S., Phouanenavong,S., Wa
Yu,C., Lewis,S.E., Rubin,G.M. and Celniker,S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 (bases 1 to 1828)
Stapleton, M., Brokstein, P., Hong, L., Agbayani, A., Carlson, J.,
Champe, M., Chavez, C., Dorsett, V., Farfan, D., Frise, E., George, R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda;
Pterygota; Neoptera; Endopterygota; Diptera; Brachyco
Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.
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Lawrence Berkeley National Laboratory
Berkeley, CA 94720
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For further information about this sequence, including its location
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/rtanslation="MPNPAKPMAPSLALGPSFGVLPSWKTAPKGSELLGTRGSGGP
/rtanslation="MPNPAKPMAPSLALGPSFGVLPSWKTAPKGSELLGTRGSGGP
/rtanslation="MPNPAPAKPALLGPSFGVLPSGKRLGPSSHLQALLQDRPHFM
FOGROLRSGAHTSSSLNPLPPSGLQLPTVJVVAVAFSLEMV
HQLSTVDAHAQTPVLQVFPLDNPAMISLPPPSAA1GVFSLKAKPGLPPGINVASLEMV
SREPALLGTPRASGTPRKDSNLLAAPQGSPLANGVANDAGKVFTEBPEEFILHGC
SREPALLGTPRASGTPRKDSNLLAAPQGSFTCANGVANDAGKVANDAGKADSGVANDS
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2 (bases 1 to 3681)
Brunkow,M.E., Jeffery,E.W., i
Wilkinson,J.E., Ziegler,S.F.
Direct Submission
Submitted (15-JUN-2000) Genon
                                                                                                                              Ramsdell,F.

Disruption of a new forkhead/winged-helix protein, scurfin, rein, the fatal lymphoproliferative disorder of the scurfy mouse Nat. Genet. 27 (1), 68-73 (2001)
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Yasayko, S.A., Wilkinson, J.E
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115179:
115279:
116498:
116598:
1177774:
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scurfin (Foxp3) mRNA,
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119345:
120636:
120736:
122861:
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113758:
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105678:
109778:
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Pred. No. 3.3e-10;
); Mismatches 18;
        Genomics,
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y of 1792
f unknown
g of 1411
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g of 1347
f unknown
g of 1116
g of 1876
f unknown
f unknown
g of 1876
g of 2295
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of 1302
f unknown
of 1067
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of 1320
unknown
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of 1468
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of 2125
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of 1371
unknown
of 1291
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of 1176
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of 1219
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of 1321
                                              Hjerrild,K.A.,
  and Ramsdell,F
                                                                                                                                                                                                                                        Hjerrild,K.A., Paeper,B., Clark,L.B.,
., Galas,D., Ziegler,S.F. and
                                                                                                                                                                                                                                                                                                   Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                Ramsdell, F
        Chiroscience
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mRNA linear ROD 24-JAN complete cds; alternatively
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                                                                    Paeper, B.W.,
        R&D
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                                                                      Clark, L.B.,
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62350 65262 65262 67195 67195 67195 67195 67195 67195 74575

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join(19185. 19391,19904. 20008,20105. 20243,20617. 20704. 20803. 20907,21698. 21785,21926. 22006,24205. 24358. 24991. 25067,25482. 25583,25732. 25875)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       join(13315. .13410,18642. .18724,19164. .19184)
/gene="Foxp3"
/note="alternative"
join(13315. 13410,18642. .18724,19164. .19391,19904. .2nnC8.20105. .20243,20617. .20704,20803. .20907,21598. .21785. 21926. .22005,24205. .24358,24991. .25067,25482. .25583.
                                                                                                                      //map-"between DXMit55 and DXMit161"
join(12525. .12678,18642. .18724,19164. .19391,19904. .20008.
20105. .20243,20617. .20704,20803. .20907,21698. .21785.
21925. .22006,24205. .24358,24991. .25067,25482. .25583.
//gene-"Foxp3"
//noctore="alternatively spliced"
//product="scurfin"
12525. .28066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FOGRDIASGARITSSELPLEPPSOLOLPTVPLVWARGEGREGERPHUDALLODERHEN
HOLSTVDAHAOTPVLOVRPLDNPAMISLPPPSAATGVFSLKARPGLEPGINVASLEWV
HOLSTVDAHAOTPVLOVRPLDNPAMISLPPPSAATGVFSLKARPGLEPGINVASLEWV
SEPFALLCTPRSGTPRKDSNLLARDGSTPLLANGVCKWPGCEKVEEPEFEFKHCO
ADHLIDEKGKAOCILLOREVVOSLEDGOLELEKEKLGANGAHLAGKALAKARSYSANDK
SSCCIVATSTGGGSVLARMSAPREAPDGGLEAVRRHLWGSHGNSSFPEFFHNWDYFKYH
NRRPPTYATLIRWALLEAPBRORTLNBIYHWRTRMFAYFRNHPATWKNAIRHNLSLH
KCFVRUSEKGAVWIVDEFEFRKKRSORPNKCSNPCP*
19904. . 20008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /protein_id="AAG53608.1"
/db_xref="GI:12407643"
/translation="MPNPRPAKPMAPSLALGPSPGVLPSWKTAPKGSELLGTRGSGGP
                                                                                                                                                                                                                                                                                                                              join(12525. .12678,18642. .18724,19164. .19184)
/gene-"Foxp3"
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/product="scurfin"
18642. .18724
                                                             /organism="Mus musculus"
                                                                                     /db_xref="taxon:10090"
/chromosome="X"
                                                                                                                                                                                                                                                                                                                                                                                                   /note="alternative"
12525. 12678
/gene="Foxp3"
Bothell, WA 98021, US
Location/Qualifiers
1. .30858
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/product="scurfin"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /number=2
20105. 20243
/gene="Foxp3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /number=-2b
13315. .13410
/gene="Foxp3"
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/gene="Foxp3"
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21926. .2
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                         FEATURES
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Brunkow,M.E., Jeffery,E.W., Hjerrild.K.A., Paeper,B.W., Clark.L.B.,
Brunkow,M.E., Jeffery,E.W., Hjerrild.K.A., Paeper,B.W., Clark.L.B.,
Brunkow,M.E., Jeffery,E.W., Hjerrild.K.A., Paeper,B.W., Clark.L.B.,
Direct Submission
Submitted (15-JUN-2000) Genomics, Chiroscience R&D Inc., 1531 220th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ROD 24-JAM-2001
  ARCRRAVKSHACYWAVLLUVELNILTIASEHHGOPWITOIOEYANKULCLFTVEML
LKLYGLGPRAYVSSFENRFDGFEVOGGILETTLEWGGAMOPLGISVLECVRLLRIFKY
FHWASLSINUVASLUNGKSTASLLLLLFLFIIIFSLGMQLFGGFFNPDOTHTRST
FDTFPOALLIYFOILTGEDWNYWTDGIMAYGGPFPFRMLVCIYFILLFIGGNYILLN
VFLAIAVDNLASGDAGTAKDKGGEKSNEKDLPOENEGLVPOYEKEEPEGARREGADME
BEEEDEEBEEBEEBEGAGGVELLQPVYKEKVYPPIPGGSAFFCLSOTHPLRKGTH
HHHYVTINLILLSTILLSSVSLAABDFIRAHFRHILGYFDYRAFISTFTVELLLKMTY
FGAFLHRGFFCRSWFNMLDLLVVSVSLISFGIHSSAISVVKILRVLEVEPRENDRINRA
                                                                                                                                                                                 KGEKHVYOCVEVALRITIGNIMIYTTELJOEMFACIGVOLFKGKFYTCTDEAKHTPOECK
GSFLVYPDGDVSRPLVRERLAVNSDFHFDNYLSAMALFTVSTFEGRPALLYKAIDAY
AEDHGPTINYRREISVFFIVYIIIAFFMANIFVGFVIITFRAGGEOEVONCELDKNY
PROCYEYALKAOPLRRYIPPROPRWATNARAFFYLMFLLILLILINIVALANOHYEOT
AFFNYAMILAOPLIMYTGLFTIEWYLKIINFKPKHYFTDAWNTFDALIVUGSIVDIAVTE
VHNGGHLGESSEDSSRISIIFFRLFRLFRYHRLWFLLKKEGEOFFYNA
                                                                                                                                                                                                                                                                                                                LLIAMIFFITAVIGMOMFGKVALQDGTQINRNNNFOTFPQAVLLLFRCATGEAWOEIM
LASLPGNRCDPESDFGPGEEFTCGSNFAIAYFISFFMLCAFLIINLFVAVIMDNFDYL
                                                                                                                                                                                                                                                                                                                                                               TEDWOLLGPHHLDEFKRIWSEYDPGAKGRIKHLDVVALLRRIOPPLGFGKLCPHRVAC
RELVAMMMPLNSDGTVTFNATLFALVRTSLKIKTEGNLEOANOELRIVIKKIWKRMKO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus
Eukaryota: Metazoa: Chordata: Craniata: Vertebrata: Euteleostomi:
Mammalia: Eutheria: Rodentia: Sciurognathi: Muridae: Murinae: Mis.
1 (bases 1 to 30858)
Brunkow,M.E., Jeffery,E.W., Hjerrild,K.A., Paeper,B., Clark,L.B.,
Yasayko,S.A., Wilkinson,J.E., Galas,D., Ziegler,S.F. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             55719 TAGCITAGGAGGGIGGGGGATGGTCCTGGGGCAGTGCCTGCTATATCCCTGCCTAGATG 55778
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        278
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Disruption of a new forkhead/winged-helix protein, scurfin, rein the fatal lymphoproliferative disorder of the scurfy mouse Nat. Genet. 27 (1), 68-73 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gggteceatectegtgagtaeegecaeteegaaagetgeaggattgeagagetggaat 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 82; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ---gatg
                                                                                                                                                                                                                                                                                                                                                                                                                             20.2%; Score 121.8; DB 9; Length 130788; 57.1%; Pred. No. 5e-18; Live 0; Mismatches 32; Indels 82; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AF277994 30858 bf DNA line:
Mus musculus scurfin (Foxp3) gene, complete cds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AF277994
AF277994.1 GI:12407642
                                                                                                                                                                                                                                                                                                                                                                                                                                                           al Similarity 57.1
233; Conservative
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Dugan-Pocha'S. Durbin, H.H., DucImbalte, K.J., Drager, H., Dugan-Pocha'S. Durbin, K.J., Earnhart.C. Eggar, D., Edwards, C.C. Elhaj, C., Escotto, M., Falls, T., Ferraguto, D., Flagg, N., Ford, J., Foster, P., Frantz, P., Gabisi, A., Garol, Garcia, A., Garner, T., Garza, N., Gill, R., Gorrell, J.H., Guevara, W., Gunarathe, P., Hale, S., Hamilton, K., Harris, C., Harris, K., Hart, M., Havlak, P., Hawes, A., Hernandez, J., Howas, F., Hober, J., Hulyk, S., Hume, J., Jackson, L.E., Jacobson, B., Jia, Y., Johnson, R., Jolivet, S., Jackson, L.E., Jacobson, B., Jia, Y., Johnson, R., Jolivet, S., Joudah, S., Karlson, E., Kelly, S., Khan, U., K., Lucier, B. Lewis, L. C., Lewis, L., Li, J., Li, Z., Lichtarge, O., Lieu, C., Liu, J., Liu, R., Louse, M., Mapus, P., Martin, R., Martindale, A., Martinez, E., Massey, E., Mawhiney, E., McLeod, M.P., Meador, M., Martinez, E., Massey, E., Mawhiney, E., Mtchell, T., Mobabbat, K., Morgan, M., Nguyen, N., Nguyen, N., Nickerson, E., Nwokenkwo, S., Ouiles, M., Okwudou, G., Oragunye, M., Nguyen, I., Rolfe, M., Suder, S., Savery, G., Scherer, S., Scott, G., Shen, F., Prims, E., Pu, L., Stone, H., Sutton, A., Svatek, A., Tabor, P., Tamerisa, A., Wall, R., Wall
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* (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

* NOTE: This is a "working draft" sequence. It currently

* consists of 78 contigs. The true order of the pieces

* is not known and their order in this sequence record is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (M6-CCT-2001) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

On Dec 20, 2001 this sequence version replaced gi:17066809.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Consensus quality: 119071 bases at least 040
Consensus quality: 129148 bases at least 030
Consensus quality: 137966 bases at least 020
Estimated insert size: 114865; sum-of-contigs estimation
Quality coverage: 0x in 020 bases; agarose-fp estimation
Ouality coverage: 1.4x in 020 bases; sum-of-contigs estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 arbitrary. Gaps between the contigs are represented as runs of N. but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
Ding, Y., Dinh, H.H., Douthwaite, K.J., Draper, H.,
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7101: gap of unknown length
11159: contig of 4058 bp in length
11259: gap of unknown length
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contig of 3273 bp in length
gap of unknown length
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Contact: hgsc-help@bcm.tmc.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Center: Baylor College of Medicine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 (bases 1 to 162389)
Worley, K.C.
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JOURNAL
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Db 28354 GGAGGCTCGCCGGAAGGAGGAGGTCTATAAAGCAGCTGGTAAGGCCTACTTTAGGGCCCTG 28295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28294 GGTTGTAAGGGTGGTTGTGGTATAGGGCTTGGGCTCACGCCTGCCATGTTCCCACCTAGG 28235
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Rattus norvegicus clone CH230-85113, *** SEQUENCING IN PROGRESS
***, 78 unordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        218 gagigicoggicogocigotiga agaggicos agagga agaggaggicos agas agas 276
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1; Gaps
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/qene="Foxp3"
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HTG: HTGS_PHASE1.
                                                  24205. .24358
/gene="Foxp3"
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/gene="Foxp3"
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/gene="Foxp3"
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/gene="Foxp3"
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24991. .25
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                            'number=
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5196523-5/c
; Parent No. 5196523
; Parent No. 5196523
; TILLE OF INVENTION: CONTROL OF GENE EXPRESSION BY GLUCOSE,
; CALCIUM AND TEMPERATURE
; VUMBER OF SEQUENCES: 28
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/354,988
; FILING DATE: 19-MAY 1989
; PRIOK APPLICATION NUMBER: 282,880
; FILING DATE: 05-DEC-1988
; APPLICATION NUMBER: 690,951
; FILING DATE: 01-JAN-1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ouery Match 5.5%: Score 21; DB 6; Length 5470; Best Local Similarity 100.0%; Pred. No. 2; Matches 21; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                          5.5%; Score 21; DB 1; Length 5470;
106.0%; Pred. No. 2;
tive 0; Mismatches 0; Indel's
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Best Local Similarity 100.0
Matches 21; Conservative
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3400..3568
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4535..5095
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SITY: Wal.:
SIATE: D.C.
COUNTRY: U.S.A.
TU: 20036-8218
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1.ENGTH: 5470
5196523-5
NAML/KEY:
LOCATION:
                                                   NAME/KEY:
LOCATION:
                                                                                                            NAME/KEY:
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US-08-441-139-12
                                   FEATURE:
                                                                                          FEATURE:
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Fatent No. 577345
GENERAL INFORMATION:
GENERAL INFORMATION:
TAPLICANT: Mittrup, Dr. Karl D.
APPLICANT: Mittrup, Dr. Karl D.
TITLE OF INVENTION: METHODS FOR INCREASING SECRETION OF TITLE OF INVENTION: RECOMBINANTLY EXPRESSED PROTEINS NUMBER OF SEQUENCES: 20
CORRESPONDENCE ADDRESSE: 20
CORRESPONDENCE ADDRESSER: SCOULTY, SCOTT, MURPHY & PRESSER
STREET: 400 Garden City Plaza
CITY: Garden City
STRATE: NY
COUNTRY: USA
                                                                        5.5%; Score 21; DB 3; Length 5162; 100.0%; Pred. No. 2; ative 0; Mismatches 0; Indels
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COMPUTER TEADABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM FC COMPATISH
COMPUTER: DEM FC COMPATISH
COMPUTER: Patentin Release #1.0, Version #1.25
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/441,139
FILING DATE: 15-MAY-1995
CLASSIFICATION: 435
PRIOR APPLICATION NUMBER: US 08/089,997
FILING DATE: 06-JUL-1993
AITORNEY/AGENT INFORMATION:
REFERENCE/DOCKET NUMBER: 8646
IELECOMMUNICATION NUMBER: 8646
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: 516-742-4366
TELEX: 310 901 SANS UR
INFORMATION FOR SEQ ID NO: 12:
SEQUENCE CHARACTERISTICS:
LENGTH: 5470 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
                                                                              Ouery Match 5.5% Best Local Similarity 100.C Matches 21; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  exon
1402..1539
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2378..2764
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: exon
LOCATION: 593..715
       ; TOPOLOGY: linear
US-09-225-170-13
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FEATURE:
NAME/KEY:
                                                                                                                                                                                                                                                 RESULT 26
US-08-441-139-12/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY:
LOCATION:
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FEATURE:
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                                                                                                       Length 18596;
                                                                                                                                                                                                                                                                                                                                                                                         RESULT 30
US-08-370-975B-6/C
US-08-370-975B-6/C
Sequence 6, Application US/08370975B
Setent No. 5622851
GENERAL INFORMATION:
APPLICANT: Maley, Frank
APPLICANT: Weiner, Frank
APPLICANT: Weiner, Karen X. B.
TITLE OF INVENTION: Human Deoxycytidylate Deaminase Gene
NUMBER OF SEQUENCES: 14
CORRESPONDENCE ALGNESS:
                                                                                                                                                                       0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: FLOPEY disk
COMPUTER: IBM PC Compatible
COMPUTER: IBM PC Compatible
COMPUTER: SYSTEM: PC-005/MS-05
SOFTWARE: Patentin Release #1.0, Version #1.25
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/370,975B
FLING DATE: 10.3A#11995
ATTORNEY/AGENT INFORMATION:
NAME: Timlan, Susain J.
NAME: Timlan, Susain J.
REGISTRATION NUMBER: 34,103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ..., jade De ..., jade De ..., jade De ..., jade De STREEF C Chirch Square, P.O. Box 1051 CITY: Rochester STAIE: New York COUNTRY: USA ...
                                                                                                             5.5%; Score 21; DB 4; júú.0%; Pred. No. 1.8;
                                                                                                                                                                       U; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20854/80
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; Sequence 1, Application US/08370975B
; Patent No. 562881
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 2089
TELECOMMUNICATION INFCHMATION:
TELEFAN: (716)263-1636
TELEFAX: (716)263-1630
INFORMATION FOR SEQ ID HO: 6:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DE 10785 CATTAAAAAAAAAAA 10765
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGIH: 20303 base pairs
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                                                                                                                    0uery Match
Best Local Similarity 100.0
Matches 21; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Maley, Frank
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nucleic acid
EDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
; OKGANISM: Homo sapiens
US-09-318-448-11
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Best Local Similarity
Matches 21; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIRANDEDNESS:
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Facent No. 6210950

GENERAL INFORMATION:

APPLICANT: Johnson, William G.

APPLICANT: Stenroos, Edward S.

TITLE OF INVENTION: METHIODS FOR DIAGNOSING, PREVENTING, AND TREATING

TITLE OF INVENTION: METHIODS FOR DIAGNOSING, PREVENTING, AND TREATING

TITLE OF INVENTION: MEMBER: US/09/318,448

CURRENT APPLICATION NUMBER: US/09/318,448

CURRENT FILING DATE: 1999-05-25

NUMBER OF SEQ ID NOS: 46

SEQ ID NO 11

SEQ ID NO 11

CENGTH: 18596
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                                         COMPUTER: Floppy disk
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
5.5%; Score 21: DB 2;
Best Local Similarity 100.0%; Pred. No. 1.9;
Matches 21; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: 15-AUG-1989
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
APPLICATION DATA:
PRIOR APPLICATION DATA:
APPLICATION DATA:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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FILING DATE: 24 MAY-1991
CLASSIFICATION: 435
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEX: 440706
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 6638 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                      COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11..3070
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MOLECULE TYPE: cDNA
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Horse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 29
US-09-318-448-11/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COCATION:
US-08-070-301-2
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Sequence 35, Application US/08759464A
Patent No. 5598601
GENERAL INFORMATION:
APPLICANT: Murtauph, Michael P. et al.
TITLE OF INVENTION: VR-2332 VIRAL NUCLEOTIDE SEQUENCE AND
TITLE OF INVENTION: M-HHODS OF USE
NUMBER OF SEQUENCES: 35
CORRESPONDENCE ADDRESS:
ADDRESSEE: John M. Collins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 1; Length 36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
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ZUEN 64108

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPEKATING SYSTEM: FC-DOS/MS-DOS

SOFTWARE: PALEALIN ACLEASE #1.0, Version #1.25

CURRUT APPLICATION DATA:

APPLICATION NUMBER: US/08/795,464A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5.2%; Score 20; DB 90.0%; Pred. No. 7.7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: John W. Collins
STREET: 2405 Grand Blvd., Suite 400
CITY: Kansas City
STATE: Missouri
COUNIRY: USA
21P: 64100
                                                          APPILIATION MOMBER: 05 0/704,400
FILING DATE: 10-AUG-1687
ATTORNEY/ACENT INFORMALION:
NAME: WILSON, MARY J.,
REGISTRATION NUMBER: 32,955
REFRENCE/FOCKET MUMBER: 1579-20
TELEPHONE: (703) 816-4100
TELEFAX: (703) 816-4100
TELEEXX: 200797 MIXH UR
INFORMATION FOR SEQ ID No.: 6:
SEQUENCE CHARACTERISTICS:
LENGIH: 36 base pairs
TYPE: nncleic acid
STRANDEDRESS: single
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/084,406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:

CLASSIFICATION: 536
PRIOR APPLICATION DAIA:
APPLICATION NUMBER: 08/287,941
FILING DATE: AUGUST 5, 1954
ATTORNEY ARGHT INFORMATION:
NAME: COLLINS, JOHN H.
REGISTRATION NUMBER: 26,262
FREFERENCE/DOCKET NUMBER: 22907
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEFAX: (816) 474-9050
INFORMATION FOR SEQ ID NO: 35:
SEQUENCE CHARACTERISTICS:
LENGTH: 135 bases
                                                                                                                                                                                                                                                                                                                                                                                 ; TOPOLOGY: linear
; MOLECULE TYPE: RNA (geromic)
US-08-113-646A-6
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Best Local Similarity 90.09
Matches 18; Conservative
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STRANDEDNESS: single
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US-08-799-464A-35
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                        APPLICANT: Weiner, Karen X.B.
TITLE OF INVENTION: Human Deoxycytidylate Deaminase Gene
NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                          ZIP: 14603

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/370,975B
FILING DATE: 10-JAN-1995
CLASSIFICATION: 435
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 6, Application US/08113646A
Patent No. 5578468
GENERAL INFORMATION:
APPLICANT: PICKUP, David J.
APPLICANT: APTEL, Dhavalkumar
APPLICANT: ANTCZAK, James B.
TITLE OF INVENTION: SITE-SPECIFIC RNA CLEAVAGE
NUMBER OF SEQUENCES: 44
CORRESPONDENCE ADDRESS:
                                                                                                                  ADDRESSEE: Nixon, Hargrave, Devans & Doyle STREET: Clinton Square, P.O. Box 1051 CITY: Rochester CONNTRY: Now York COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY AGENT INFORMATION:
NAME: Timian, Susan J.
REGISTRATION NUMBER: 34,103
REFERENCE/DOCKET NUMBER: 20894/80
TELECOMMUNICATION INFORMATION:
TELEPHONE: (716)263-1630
TELEPAX: (716)263-1600
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER: US/08/113,646A
31-AUG-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE: NIXON 6 VANDERHYE P.C. STREET: 1100 NORTH GLEBE ROAD CITY: ARLINGTON CITY: ARLINGTON COUNTRY: U.S.A. ZIP: 22201-4714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     362 cattaaaaaaaaaaaaaa 382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear MOLECULE TYPE: DNA (genomic) POSITION IN GENOME:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 26764 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHROMOSOME/SEGMENT: 4q35
US-08-370-575B-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER:
FILING DATE: 31-AUG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-113-646A-6
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APPLICANI: MCCOY, John
APPLICANI: LaValle, Euward
APPLICANI: Racie, Lisa
APPLICANI: McDerg, David
APPLICANI: McDerg, Maurice
APPLICANI: Spaulding, Vikki
APPLICANI: BOwmen, Michael
TillE OF INVENTION: SECRELED PROTEINS AND POLYNUCLEOTIDES
TILLE OF INVENTION: ENCODING THEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 358;
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STREET: 1100 NEW YORK AVENUE, NW: NINTH FLOOR, EAST
STREET: TOWER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM: PC_DOS/MS-DOS
SOFTWARE: PacentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/06/721,488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5.2%; Score 20; DB 2;
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Parent No. 5482528
GENERAL INFORMATION:
APPLICANT: BEOLIE, MIGUEL
APPLICANT: CAMMUE, BKUNO PA
APPLICANT: CAMMUE, BKUNO PA
APPLICANT: VANDERLEYDEN, JOZEF
APPLICANT: REES, SARAH B
TITLE OF INVENTION: BIOCIDAL PROTEINS
NUMBER OF SEQUENCES: 13
CCKRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No.
                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 16
CORRESONDENCE ADDRESS:
ADDRESSE: Generics Institute, Inc.
SIREET: 87 CambridgePark Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Brown, Scott A.
REGISTARTION NUMBER: 32,724
TELECOMMUNICATION INFORMATION:
TELEPRAX: (617) 498-8224
INFORMATION FOR SEO. ID NO: 5:
SEGUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: Floppy disk COMPUTER: 15M PC COMPATIBLE PC-DOS AND SOFTWARP PC-DOS AND SOFTWARP PC-DOS AND SOFTWARP PC-DOS AND 
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CLASSIFICATION: 424
ATFORNEY/AGENT INFORMATION:
Kenneth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      358 base pairs
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Best Local Similarity 100.
Matches 20; Conservative
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MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nucleic acid
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US-68-721-488-9
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STATE: D.C.
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KY: USA
20005-3918
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CIIY: Cambridge
SIATE: Massachus
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US-08-117-080-13
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Facent No. 5998601
GENERAL INFORMATION:
APPLICANT: Murtaugh, Michael P. et al.
TITLE OF INVENTION: WR-2332 VIRAL NUCLEOTIDE SEQUENCE AND TITLE OF INVENTION: WR-1332 VIRAL NUCLEOTIDE SEQUENCE: ADDRESSE: ADDRESSE: John M. Collins
STREET: 2405 Grand Blvd., Suite 400
CTITY: Kansas City
STATE: Missouri
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 171;
                                                                                                                           5.2%; Score 20; DB 2; Length 135; 100.0%; Pred. No. 6.9; trive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: FLORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRAN APPLICATION DATA:
APPLICATION NUMBER: US/08/799,464A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 2;
6.8;
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Pred. No.
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CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION NUBBER: 08/287,941
FILING DATE: August 5, 1994
ATTORNEY/AGENI INFORMATION:
NAME: Collins, John M.
REGISTAATION NUMBER: 26, 262
REFERENCE/DOCKET NUMBER: 22907
FELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (816) 474-9550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5.2%; Scor.
100.0%; Pre
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                                                                                                                                                                                                                                                                                             TELEPHONE: (816) 474-9050
TELEFAX: (816) 474-9057
INFORMATION FOR SEQ ID NO: 34:
SEQUENCE CHARACTERISTICS:
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Ouery Match
Best Local Similarity 100.0
Matches 20; Conservative
                                                                                                                                     0.2%
Best Local Similarity 100.0
Matches 20; Conservative
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STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 171 bases
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HYPOTHETICAL:
                   HYPOTHETICAL:
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GENERAL INFORMATION:

APPLICANT: BROEKERERT, WILLEM F
APPLICANT: CAMMUE, BRUND PA
APPLICANT: CAMMUE, BRUND PA
APPLICANT: REES, SARAH B
TITLE OF INVENTION: BICCIDAL PHOTEINS
NUMBER OF SEQUENCES: 13
CORRESPONDENCE ADDRESS:
ADDRESSE: CUSHMAN DARBY & CUSHMAN
STREET: 1100 NEW YORK AVENUE, NW; NINTH FLOOR, EASI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
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APPLICATION NUMBER: US/08/915,142 FILING DATE: 26-AUG-1997 CLASSIFICATION: 800
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 5.2%; Score 20; DB 1; Best Local Similarity 100.0%; Pred. No. 6.3; Matches 20; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; ORGANISM: FIGURE 7 BASE SEQUENCE MJ-AMP2
US-08-471-329-13
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APPLICATION NUMBER: US 08/471,329
FILING DATE: 02-7UN-1995
FILING DATE: 20-DEC:1953
APPLICATION NUMBER: US 08/117,080
FILING DATE: 10-MAR-1992
PRIOR APPLICATION NUMBER: CIT/GB92/00423
PRIOR DATE: 10-MAR-1992
PRIOR PAPLICATION NUMBER: GB 9105052.6
FILING DATE: 11-MAR-1991
FILING DATE: 20-DEC-1993
APPLICATION NUMBER: PCT/GB92/00423
FILING DATE: 10-MAR-1992
PROM APPLICATION NUMBER: GB 9105052.6
APPLICATION NUMBER: GB 9105052.6
FILING DATE: 11-MAR-1991
PRIOR APPLICATION NUMBER: GB 9105684.6
FILING DATE: 19-MAR-1991
TELECHOME: (202) 861 3000
TELEFROM: (202) 861 3000
TELEFRX: (202) 861 3000
TELEFAX: (202) 861 3000
TELEFAX: (202) 862-0944
TELEFAX: (202) 861 3000
TELEFAX: (202) 862-0944
TELEFAX: (202) 862-0944
     20-DEC-1993
MBER: PCT/GB92/00423
10-MAR-1992
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM FC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; Sequence 13, Application US/08915142; Patent No. 5942663
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LENGTH: 433 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
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: USA
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MOLECULE IYPE:
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                                           SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/117,080
FILING DATE:
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/471,329
FILLIGU DATE: 02-JUN-1995
CLASSIFICATION: 800
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ADDRESSEE: CUSHMAN DARBY & CUSHWAN
STREET: 1100 NEW YORK AVENUE, NW: NINTH FLOOR,
STREET: TOWER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: FIGURE 7 BASE SEQUENCE MJ-AMP2
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APPLICATION NUMBER: PCT/GB92/00423
FILING DATE: 10-MAR-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: GB 9105052.6
FILING DATE: 11-MAR-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: GB 9105684.6
FILING DATE: 19-MAR-1991
TELECOMMUNICATION NUMBER: GB 9105684.6
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TELEROCH 63 3000
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APPLICANT: BROKRAET, WILLEM F
APPLICANT: CAMMUE, BRUND PA
APPLICANT: VANDERLEYDEN, JOZEF
APPLICANT: REES, SARAH B
TITLE OF INVENTION: BIOCIDAL PROTEINS
NUMBER OF SEQUENCES: 13
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APPLICATION NUMBER: US 08/117,080
               MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 13, Application US/08471329
Patent No. 5689048
GENERAL INFORMATION:
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100.0%; Pic
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Best Local Similarity 100.(
Matches 20; Conservative
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ZIP: 20005-3918
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           single
                                                                                                                                                                                 CLASSIFICATION: 530
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY: linear MOLECULE TYPE: CDNA ORIGINAL SOURCE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: nucleic
STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-117-080-13
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US-08-471-329-13
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5.2%; Score 20; DB 5; Length 526; 100.0%; Pred. No. 6.2; Live 0; Mismatches 0; Indels
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Fatent No. 6210883
GENERAL INFORMATION:
APPLICANT: Reed, Steven G.
APPLICANT: Reed, Tonglong
ITTLE OF INVENTION: COMPOUNDS AND METHODS FOR DIAGNOSIS
ITTLE OF INVENTION: GORDOLOUS AND METHODS FOR DIAGNOSIS
INDER OF SEGUENCES: 86
CORRESPONDENCE ADDRESS:
  Length 526;
                                           Indels
                                                                                                                                                                                                                         Sequence 2, Application PC/TUS9509762
GENERAL INFORMATION:
APPLICANT: MORTISON, Briggs W.
APPLICANT: Leder, Philip
IITLE OF INVENTION: Detection and Treatment of Breast
TITLE OF INVENTION: Cancer
NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
5.2%; Score 20; DB 1;
100.0%; Pred. No. 6.2;
1ive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OPERATING SYSTEM: MS-DOS (Version 5.0)
SOFTWARE: WordPeriect (Version 5.1)
CURRENT APPLICATION LATA:
APPLICATION NUMBER: PCT/US95/09762
FILING DATE:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/289,247
FILING DATE:
FILING DATE:
ATTORNEY AGENT INFORMATION:
NAME: Clark, Paul T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       00383/021001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: U.S.A.
ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
COMPUTER: 15M PS/2 Model 502 or 55SX
                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: Fish & Richardson
STREET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Clark, Paul T.
REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 00
TELECOMMUNICATION INFORMATION:
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                                                                                   363 attaaaaaaaaaaaaaa 382
                                                                                                             504 ATTAAAAAAAAAAAAAA 523
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(617) 542-8906
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Best Local Similarity 100.
Matches 20; Conservative
                                                Conservative
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TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   : STRANDEDNESS: Single
: TOPOLOGY: linear
PCI-US95-09762-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Massachusetts
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      cuery Match
Best Local Similarity
Matches 20; Conserv
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PCI-US95-09762-2
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100.0%; Pred. No. 6.3;
ive 0; Mismatches 0; Indels
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APPLICANT: Leder, Philip
TITLE OF INVENTION: Detection and Treatment of Breast
TITLE OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE: Massachusetts
COUNTRY: U.S.A.
2110.2223
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
CORPUTER: IBM PS/2 Model 502 or 558X
OPERATING SYSTEM: MS-DOS (Version 5.0)
SOFTWARE: WordPerfect (Version 5.1)
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                      ORGANISM: FIGURE 7 BASE SEQUENCE MJ-AMP2
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Mismatches
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REGISTRATION NUMBER: 39,109
REFERENCE/POCKET NUMBER: 00383/021001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 428-0200
TELEFAX: (617) 428-7045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/08/289,247B FILING DATE: August 11, 1994 PRIOR APPLICATION DATA: APPLICATION NUMBER:
                              GB 9105684.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 2, Application US/08289247B Patent No. 5728579
                     PRILICATION NUMBER: GB 9105684
FILING DATE: 19-MAR-1991
TELECHONE: (202) 861 3000
TELETEN: (21627 CSH
TELETEN: (514627 CSH
TINORMATION FEQUENCE: (14617 CSH
TINORMATION FEQ TO NO: 13: SEQUENCE CHARACTERISTICS: LENGTH: 433 base pairs
TYPE: nucleic acid
STRANDENNESS: Single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Clark & Elbing LLP
STREET: 176 Federal Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          363 attaaaaaaaaaaaaaa 382
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
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LENGTH: 526
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: nucleic acid
STRANDEDNESS: single
               PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                  CDNA
                                                                                                                                                                                                                                                      TOPOLOGY: ______TINEAR MOLECULE TYPE: CDN/ORIGINAL SOURCE:
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US-08-289-2478-2
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Parent Nc. 5551434
GENERAL INFORMATION:
APPLICANT: Fayer, Ronald
APPLICANT: Tiley, Michael
APPLICANT: Upton, Steven J
TITLE OF INVENTION: DNA Sequence Encoding Surface Protein of Patent No. 5551434
ITILE OF INVENTION: Cryptosporidium Parvum
NUMBER OF SEQUENCES: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5.2%; Score 20; DB 1; Length 602; 100.0%; Pred. No. 6.1;
                                                                                                                                                                      0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM FC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
FILING DATE:
FILING DATE:
                                                                                                                           Score 20; DB 4;
Pred. No. 6.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REPERENCE/DOCKET NUMBER: P.C. 0108.94
IELECOMMUNICATION INFORMATION:
TELEPHONE: (309)-631-6515
TELEPHONE: (309)-631-6618
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 602 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
ADDRESSEE: USDA-ARS-OTT-NCAUR
STREET: 1815 N. University Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Cryptosporidium parvum
DEVELOPMENTAL STAGE: Sporozoite
                                                                                                            5.2%; SCC.
100.0%; Pre
: NAME/KEY: misc_feature
! LOCATION: (579)
: OTHER INFORMATION: n ~ A,T,C or G
US-69-328-111-68
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ATTORNEY/AGENT INFORMATION:
NAME: Deck, Randall E
REGISTRATION NUMBER: 34,0
                                                                                                                                Guery Match
Best Local Similarity 100.
Matches 20, Conservative
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Best Local Similarity
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CLONE: CP15/60
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STREET: las.
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; LOCATION: 1...
US-08-229-393-1
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ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: 117
MOLECULE TYPE:
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STAIE: IL
COUNTRY:
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APPLICANT: Steinmann, Kathleen E.
APPLICANT: Steinmann, Kathleen E.
APPLICANT: Steinmann, Kathleen E.
APPLICANT: Buspass, Christopher C.
APPLICANT: Catrion, Steven E.
APPLICANT: Catrion, Theodore J.
APPLICANT: Catrion, Theodore J.
APPLICANT: Catrion, Theodore J.
APPLICANT: Lewis, Marcia E.
APPLICANT: Devil, Mana M.
APPLICANT: Lewis, Marcia E.
APPLICANT: Schlegel, Robert
TITLE OF INVENTION: NOVEL HUMAN GENES AND GENE EXPRESSION
TITLE OF INVENTION: NOVEL HUMAN GENES AND GENE EXPRESSION
TITLE OF INVENTION: NOVEL HUMAN GENES AND GENE EXPRESSION
TITLE OF INVENTION: NOVEL HUMAN GENES AND
FILE REFERENCE: CCD-257 (US)
CURRENT APPLICATION NUMBER: US 60/088,801
EARLIER FILING DATE: 1998-06-10
NUMBER OF SEQ ID NOS: 850
SOFTHARE: FastSEQ for Windows Version 3.0
SEQ ID NO 68
LENGTH: 579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ouery Match 5.2%; Score 20; DB 4; Length 536; Best Local Similarity 100.0%; Pred. No. 6.2; Matches 20; Conservative 0; Mismatches 0; Indels
           ADDRESSEE: SEED and BERRY LLP
STREET: 6300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                               OPERATING SYSTEM.

SOFTWARE: FESSLEED FOR Windows Version 2.0
SOFTWARE: FESSLEED for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/040,984
FILING DATE: 18 WAR-1998
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Maki, David J.
RECISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 210121.456
TELEPHONE: 206-622-4900
TELEPHONE: 206-622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 68, Application US/09328111 Pacent No. 6262333 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: Diskette COMPUTER: IBM Compatible OPERATING SYSTEM: DOS SOFTWARE: FARTER OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 536 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       single
                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: linear MOLECULE TYPE: cDNA
                           STREET: 6300 C
                                                                                                USA
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                                                                                              COUNTRY:
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Length 613;
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APPLICATION HUMBER: US/05/005,065 FILING DATE:
CLASSIFICATION DAIA:
PRIOR APPLICATION DAIA:
APPLICATION HUMBER: 08/630,822 FILING DATE: 11-AFR-1956
ATTONNEY/AGENT INFORMATION:
REGISTRATION NUMBER: 32,020 REFERENCE/DOCKET NUMBER: 2618-17-C3 REFERENCE/DOCKET NUMBER: 2618-17-C3 TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 663-9700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 core 20; DB 2;
Pred. No. 6.1;
Mismatches 0
1706 Lincein Street, Suite 3500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5.2%; Score 20;
100.0%; Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ilarity 100.0%; P
Conservative 0;
                                                                                                                                                                                                                     IBM PC compatible
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEPHONE: (303) 863-9700
TELEFAX: (303) 863-0223
INFORMATION FOR SEQ ID NO: 98:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 613 base pairs TYPE: nucleic acid
                                                                                                                                 ZIP: 80203
COMPUTER READABLE FURM:
MEDIUM TYPE: FlOPPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; TOPOLOGY: linear
; MOLECULE TYPE: CDNA
US-09-005-069-98
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Matches 20; Conserv
                                                                  Colorado: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS:
                                    CITY: Denver
STATE: Colora
COUNTRY: U.S.,
ZIP: 80203
                                                                                                                                                                                                                               COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
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US-09-005-069-98
Sequence 98, Application US/09005069
Sequence 98, Application US/09005069
Setent No. 5932470
GENERAL INFORMATION:
APPLICANT: HUNTER SHIRLEY WU
APPLICANT: HUNTER SHIRLEY WU
TITLE OF INVENTION: NOVEL ECTOPARASITE SALIVA PROTEINS
TITLE OF INVENTION: AND APPARATUS TO COLLECT SUCH PROTEINS
NUMBER OF SEQUENCES: 107
CRRESPONDENCE ADDRESS:
ADDRESSEE: Sheridan Ross P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
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                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: FRANK, GLENN R.
APPLICANT: HUNTEK, SHIRLEY WU
APPLICANT: HULENFELS, LYNDA
TITLE OF INVENTION: NOVEL ECTOPARASITE SALIVA PROTEINS
TITLE OF INVENTION: AND APPARATUS TO COLLECT SUCH PROTEINS
NUMBER OF SEQUENCES: 107
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5.2%; Score 20; DB 2; Length 613; 100.0%; Pred. No. 6.1; ive 0; Mismatches 0; Indels
                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
ECOMPUTER: IBM PC COMPALIBLE
COMPUTER: IBM PC COMPALIBLE
COMPUTER: IBM PC COMPALIBLE
COMPUTER: IBM PC COMPALIBLE
COMPANIOS SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.25
CURRENT APPLICATION NOTA:
APPLICATION NUMBER: US/08/630,822A
FILING DATE: 11-APR-1996
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
REFERENCE/COCKET NUMBER: 2618-17-C3
REGISTRATION NUMBER: 2618-17-C3
REFERENCE/COCKET NUMBER: 2618-17-C3
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: Sheridan Ross P.C.
STREET: 1700 Lincoln Street, Suite 3500
CITY: Denver
CATA: Colorado
COUNTRY: U.S.A.
ZIP: 80203
                             Mismatches
                                                                                                                                                                                                                                                                             03-08-630-822A-98
; Sequence 98, Application US/08630822A
; Patent No. 5840695
                             ;
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                                                                                             363 attaaaaaaaaaaaaaaaa 382
                                                                                                                                                     582 ATTAAAAAAAAAAAAAA 601
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Best Local Similarity 100.(
Matches 20; Conservative
                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
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US-08-630-822A-98
                                 20;
                                       Matches
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GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd. OM nucleic - nucleic search, using sw model Run on: April 30, 2002, 10:50:11; Search time 728.83 Seconds (without alignments)	Title: US-09-248-178-60 Perfect score: 602 Sequence: 1 tgaagagccgcgcgtggag	Scoring table: OLIGO_NUC Gapop 60.0 , Gapext 60.0 Searched: 930621 seqs, 428662619 residues	ze : 10 umber of hits sa	Minimum DB seq length: 0 Maximum DB seq length: 2000000000 Post-processing: Listing first 45 summaries	Database: N_Geneseq_1101:* 1: /SIDS1/qcgdata/geneseq/geneseqn/NA1980.DAI:* 2: /SIDS1/qcgdata/geneseq/geneseqn/NA1981.DAT:* 3: /SIDS1/qcgdata/geneseq/geneseqn/NA1981.DAT:* 4: /SIDS1/qcgdata/geneseq/geneseqn/NA1981.DAT:* 5: /SIDS1/qcgdata/geneseq/geneseqn/NA1984.DAT:* 6: /SIDS1/qcgdata/geneseq/geneseqn/NA1984.DAT:* 7: /SIDS1/qcgdata/geneseq//geneseqn/NA1981.* 7: /SIDS1/qcgdata/geneseq//geneseqn/NA1981.DAT:* 8: /SIDS1/qcqdata/geneseq//geneseqn/NA1981.DAT:*	9: /SIDS1/gcgdata/geneseq/yenceqqn/NA1988.DAT:* 10: /SIDS1/gcgdata/geneseq/yenceseqn/NA1989.DAT:* 11: /SIDS1/gcgdata/geneseq/yenceseqn/NA1990.DAT:* 12: /SIDS1/gcgdata/geneseq/yenceseqn/NA1990.DAT:* 13: /SIDS1/gcgdata/geneseq/yenceseqn/NA1991.DAT:* 14: /SIDS1/gcgdata/geneseq/yenceseqn/NA1991.DAT:* 15: /SIDS1/gcgdata/geneseq/yenceseqn/NA1994.DAT:* 15: /SIDS1/gcgdata/geneseq/yenceseqn/NA1994.DAT:* 16: /SIDS1/gcgdata/geneseq/yenceseqn/NA1994.DAT:*	17: /SIDSI/gcgdata/geneseq/geneseqn/NA1996.DAT:• 18: /SIDSI/gcgdata/geneseq/geneseqn/NA1997.DAT:• 19: /SIDSI/gcgdata/geneseq/geneseqn/NA1998.DAT:• 20: /SIDSI/gcgdata/geneseq/geneseqn/NA1999.DAT:• 21: /SIDSI/gcgdata/geneseq/geneseqn/NA2000.DAT:• 22: /SIDSI/gcgdata/geneseq/geneseqn/NA2000.DAT:•	Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution. SUMMARIES	Result Query No. Score Match Length DB ID	1 602 100.0 602 20 AAX84206 DNA encoding human 2 602 100.0 602 21 AAC79435 CDNA sequence of r Human cancer assoc of A 5 75.7 1815 21 AAC79435 CDNA sequence of r Human cancer assoc c 4 18 3.0 459 22 AAF83408 P. chrysogenum ABC c 5 18 3.0 771 21 AAC79531 Plant viral moveme Human leukocyte ce 18 3.0 1113 19 AAV49553 Human leukocyte ce Human leukocyte ce 2 18 3.0 170 22 AAR33458 C. thermoaminogene C 10 18 3.0 170 22 AAR453433 C. thermoaminogene DNA encoding human la 3.0 170 19 AAV38502 DNA encoding human la 3.0 1776 22 AAH98783 Human EST-derived

AAC75435;

59; 70pp; English

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Claim 3;

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This sequence encodes a human breast tumour protein immunogenic frayment of the invention. The polypeptides or nucleic acids encoding them are useful in vaccines and pharmaceutical compositions for manufacture of immedicaments for inhibiting the development of breast cancer in a patient. They can also be used to treat breast cancer. Antibodies against these polypeptides can be used to detect and monitor proyression of breast ancer, in patients. Primers and probes derived from the polynucleotides encoding the breast proteins are useful for detection of breast cancer. Peripheral blood cells from a patient incubated in the presence of at last one polypeptide, such that T cells proliferate, are useful in manufacture of a medicament for treating breast cancer in a patient. Antiyen presenting cells incubated in the presence of at least one polypeptide are also useful for treating breast cancer.
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Matches 602; Conservative 0; Mismatches 0;
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The present sequence and isolated from a breast tumbur cond library. It is provided in a specification relating to compounds for immunotherapy and diagnosis of breast cancer. Breast tumbur antigens and the polynucleotides that encode them may be used in the production of a pharmaceutical composition to be used in the treatment of breast cancer. Proliferated T cells and incubated antigen presenting cells are also required. The polypeptides and polynucleotides may also be used to produce a vaccine.
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                                                                     antigen; cytostatic; immunotherapy;
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Best Local Similarity 100.0%; Pred. No. 9.4e-289;
Matches 602; Conservatire 0; Mismatches
                                          cDNA sequence of human preast tumour clone 1016Dá.
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breast cancer protein useful
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                                                                                                                                                                                                                                                                                                                                                                  Human; cancer associated gene; cancer antigen; detection; cancer; diagnosis; cytostatic; proliferative; vulnerary; immunomodulator; antidabetic; antiasthmatic; antirheumatic; antiarthritic; antiviral; antinflammatory; antithyroid; antiallergic; antiacterial; cardiant; dermatological; neuroprotective; thrombolytic; coagulant; nootropic; vasotropic; antipsoriatic; antiangiogenic; gene therapy; inflammation; immune disorder; haematopoletic call disorder; autoimmune disorder; haematopoletic call disorder; autoimmune disorder; haematopoletic call disorder; autoimmune disorder; haemostatic; thrombolytic; cardiovascular disorder; infection; neurological disease; drug screening; ss.
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                                  agcagaaggaagayatcaccaagatcttgtctgatacgaaggagcttcagaaggaaatca
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Polynucleotides, polypeptides, antibodies, agonists and antagonists from the present invanced by based to treat immune disorders by activating or inhibiting the proliferation, differentiation or mobilisation of immune cells, to treat disorders of haematopoletic cells, autoimmune disorders, allegior reactions, graft versus host disease and organ rejection, modulate haemostatic or thrombolytic activity, modulate inflammation, cancers, cardiovascular disorders, neurological disease and inflammation or an inflammation or the peptides, nucleotides, antibodies, agonists and antagonists may be also be used in drug screens. AAC78449 to AAC78457 and AAB4424 represent sequences used in the exemplification of
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches 456; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Penicillium chrysogenum.
                                                                                                                                                                                                                                                                             the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
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Weng 2, Cahoon RE;
                                                                                                                                                                     WPI; 2001-291055/30.
P-PSDB; AAB62499.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hevea brasiliensis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200060088-A2.
                                                                                                                    (STAM ) DSM NV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         06-APR-2000;
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                                             03-NOV-1999;
03-NOV-1999;
03-NOV-1999;
03-NOV-1999;
                                                                                     03-NOV-1999;
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                                      03-NOV-1999;
                          03-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAC79351;
                                                                                                                                       Van Den
                                                                                                                                                  Schuurs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Θ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Plant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            viral
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                                                                                                                                                                                                                                                  The invention relates to a method for enhancing the secretion of beta-
lactam compounds from a micro-organism that comprises enhancing ABC
dadenosine triphosphate (ATP)-binding cassette) transporter activity of
the micro-organism. The method is used for enhancing the production and
secretions of beta-lactam antibiotics like penicillin and cephalosporins.
Manipulation of the ABC-transport protein system provides a means for
enhancing beta-lactam secretion. The present sequence represents or
partial cDNA sequence of the P. chrysogenum ABC transporter dd062.
                                                                                                                                                                                         Enhancing secretion of beta-lactam compounds from a micro-organism by enhancing adenosine triphosphate-binding cassette transporter activity, useful for producing e.g. penicillin and cephalosporins -
                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note= "the start and stop codons are not indicated"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Beta-lactam; micro-organism; ABC transporter; ATP-binding cassette; adenosine triphosphate-binding cassette; antibiotic; penicillin; cephalosporin; dd062; ss.
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                                                                                                                                          Konings WN;
                                                                                                                                                                                                                                                                                                                                                                       DB 22; Length 459; 30;
                                                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                              Sequence 459 BP; 100 A; 133 C; 119 G; 107 T; 0 other;
                                                                                                                                          Driessen AJM,
                                                                                                                                                                                                                                                                                                                                                                            Score 18; DB 2; Pred. No. 30; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P. chrysogenum ABC transporter dd062 cDNA.
                                                                                                                                          Van Den Berg MA, Bovenberg RAL, Dries.
Schuurs TA, Nieboer M, Westerlaken I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                   Claim 9; Page 116; 116pp; English.
                                                                                                                                                                                                                                                                                                                                                                    3.0%; Sco.
100.0%; Pre
0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "dd062"
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                                              99EP-0203689.
99EP-0203690.
99EP-0203691.
99EP-0203692.
99EP-0203693.
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                                                                                                                                                                                                                                                                                                                                                                                                                               160 CACGAGAACTGCAGCCAG 143
                    99EP-0203685
                                        99EP-0203688
                                                                                                                                                                                                                                                                                                                                                                                                                     534 cacgagaactgcagccag 551
          99EP-0203684
                            99EP-0203687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
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                                                                                                                      (STAM ) DSM NV
        03-NOV-1999;
03-NOV-1999;
03-NOV-1999;
03-NOV-1999;
                                              03-NOV-1999;
03-NOV-1999;
03-NOV-1999;
03-NOV-1999;
03-NOV-1999;
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                                                                                                  03-NOV-1999
                                                                                                                                                    Schuurs TA,
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Best Local S
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The invention relates to a method for enhancing the secretion of beta-
lactam compounds from a micro-organism that comprises enhancing ABC
dealorshine triphosphate (ATP)-binding cassette) transporter activity of
the micro-organism. The method is used for enhancing the production and
secretions of beta-lactam antibiotics like penicillin and cephalosporins.
Manipulation of the ABC-transport protein system provides a means for
enhancing beta-lactam secretion. The present sequence represents the
CDNA sequence of the P. chrysogenum ABC transporter dd062.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Enhancing secretion of beta-lactam compounds from a micro-organism by enhancing adenosine triphosphate-binding cassette transporter activity, useful for producing e.g. penicillin and cephalosporins
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                                                                                                                                                                                                                                                                                                                                         Konings WN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 459;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  viral movement protein; transport; transgenic plant; resistance; cosuppression; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 459 BP; 100 A; 133 C; 119 G; 107 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Plant viral movement protein encoding cDNA SEQ ID 7.
                                                                                                                                                                                                                                                                                                                                         Berg MA, Bovenberg RAL, Driessen AJM,
TA, Nieboer M, Westerlaken I;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 9; Page 116-117; 116pp; English.
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                                                                                                99EP-0203689.
99EP-0203690.
99EP-0203691.
                                                                                                                                                                                99EP-0203692.
99EP-0203693.
99EP-0203694.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            160 CACGAGAACIGCAGCCAG 143
                                             99EP-0203687.
99EP-0203684
99EP-0203685
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Best Local Similarity 100.
Matches 18; Conservative
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AA233458
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                                                                                                                                                                                               polynucleotide sequences AAC79348-C79375 encode plant viral movement proteins AAB4494-B4450. Some plant viruses have been shown to be able to establish systemic infections via movement proteins that utilise existing plant pathways to traffic macromolecules to surrounding cells. Proteins such as those of the invention are similar to viral movement proteins that function in the transport of nucleic acids from cell to proteins that function in the transport of nucleic acids from cell to cell. The plant viral movement proteins are useful for obtaining a nucleic acid fragment encoding a viral movement protein. Polynucleotides election of a transformed cell. The proteins are useful in the field of plant wiral movement proteins are useful in the field of proteins. The proteins are useful in the field of proteins are also useful for isolating conday homologous proteins from the same or other plant species, and to create transgenic plants in which the protein is presented at higher or lower levels than normal viral coll types or developmental stages in which they are not normally found. The proteins and nucleotide sequences
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Transmembrane domain; human; nutrition; cytokine; cell proliferation; differentiation; immune system; stimulator; suppressor; regulator; heamatopoiesis; activin; inhibitor; chemotactic; chemokinetic; receptor; haemostatic; thrombolytic; ligand, anti-inflammatory; tumour; ds.
                                                                    Novel viral movement polypeptides and polynucleotides useful in field of plant molecular biology, for producing transgenic plants, to prepare antibodies and in immunological screening of CDNA expression libraries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
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Pred. No. 30;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 771 BP; 216 A; 138 C; 176 G; 236 T; 5 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Yamaguchi T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human leukocyte cell clone HP00804 cDNA #2.
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100.0%; P1.
                                                                                                                                                                   Claim 2; Page 37; 62pp; English.
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(SAGA ) SAGAMI CHEM RES CENTRE.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   194 ggcagagatccaagaact 211
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0.0 Ouery Match
Best Local Similarity 100.
Matches 18; Conservative
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                WPI; 2000-638467/61.
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                                    P-PSDB; AAB44497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21-OCT-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17-NOV-1697;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  resistance.
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                                                                                                                                        AAV49550-V49599 are cDNA sequences which encode Luman proteins containing
                                                                                                                                                                                                                                                haematopoiesis regulating, tissue growth, activin/inhibin, chemotactic/chemokinatic, haemostatic and thrombolytic, receptor/ligand, anti-inflammatory or tumour inhibition activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New nucleic acid expressed at high level in prostatic tumor tissue and encoded polypeptides, useful for treating cancer and screening for therapeutic agents ^{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rosenthal A;
                                                                                                                                                                 a transmembrane domain. These proteins can be used for, e.g. research and nutrition, and may have cytokine and cell proliferation/differentiation, immune stimulating/suppressing,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nence tay; EST; prostate tumor; antitumor; treatment; tissue specificity human; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1113;
Human protein having transmembrane domain - useful for, e.g.
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                                                                                                                                                                                                                                                                                                                                                                      Sequence 1113 BP; 209 A; 403 C; 264 G; 237 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 19;
30;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 18;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (META-) METAGEN GES GENOMFORSCHUNG MBH.
                                                                                  Claim 3; Page 118-115; 205pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                      3.0%; Scu.
100.0%; Pre
0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      58DE-1011193.
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                              research and nutrition
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1999-519628/44.
P-PSDB; AAY48255.
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Best Local Similarity
Watches 18; Conserv
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12-OCT-2001 (first entry)
       21-SEP-1998 (first entry)
                                                                                                                                                    /*tag=
                                                                                                                                                                                                                                                                                       Bandman O, Coleman K;
                                                                                                                                                                                                                                                                   (INCY-) INCYTE PHARM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 18; Conserv
                                                                                                                                                                                                                                                                                                            WPI; 1998-297868/26
                                                                                                                                                                                                                                                                                                                       P-PSDB; AAW62612
                                                                                        lathyrism; ss
                                                                                                                                                                                                                          10-NON-1597;
                                                                                                                                                                                                                                               14-NOV-1996;
                                                                                                             Homo sapiens.
                                                                                                                                                                                   WO5821241-A1
                                                                                                                                                                                                                                                                                                                                                               Alzheimer's
                                                                                                                                                                                                      22-MAY-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAH98783;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               coryneform microbe that encodes a heat-resistant lysin biosynthetic enzyme. The enzyme has aspartate-semialdehyde dehydrogenase activity and can be used for growing amino acid-producing microbes. The present sequence encodes an enzyme of the invention.
                                                                                                      Gaps
specificity). This approach eliminates many of the false results, a regards tissue specificity, associated with known methods that use single (usually short) ESTs. AA233423-233476 represent expressed sequence tags described in the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to a gene from a high temperature-resistant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A heat-resistant lysin biosynthetic system enzyme gene of a high temperature-resistant coryneform microbe
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3.0%; Score 18; DB 22; Length 1704; 100.0%; Pred. No. 29;
                                                                                 Score 18; DB 20; Length 1557; Pred. No. 29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                      Indels
                                                                                                                                                                                                                                                                                 Heat-resistant; lysin biosynthesis; enzyme; coryneform; aspartate-semialdehyde dehydrogenase; lysA; ds.
                                                                                                                                                                                                                                                             C. thermoaminogenes lysin biosynthetic enzyme lysA DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1704 BP; 286 A; 613 C; 525 G; 280 T; 0 other;
                                                   Sequence 1557 BP; 293 A; 538 C; 398 G; 328 T; 0 other;
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                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 5; Page 16-18; 27pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3.0°.
100.0%; Pre
0;
                                                                                                                                                                                                                                                                                                                 Corynebacterium thermoaminogenes.
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                                                                                                                                                                                                  BP.
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0
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                                                                                              100.08;
                                                                                    3.0%;
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                                                                                                                            330 egcatectggagategtg 347
                                                                                                                                             768 cgcatcctggagatcgtg 785
                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                    Query Match 3.0
Best Local Similarity 100.
Matches 18; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                      (AJIN ) AJINOMOTO KK.
                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-364760/38.
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Best Local Similarity
Matches 18; Conserv
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                                                                                                                                                                                                                                                                                                                                      JP2001120270-A.
                                                                                                                                                                                                                                                                                                                                                                              01-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                  01-NOV-1999;
                                                                                                                                                                                                                                           11-SEP-2001
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                                                                                                                                                                                                                      AAH45373
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                                                                                                                                                                               RESULT 9
AAH45373/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAV38502
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The present sequence encodes human glutamate-binding protein (HGLUBP).

The protein has structural homology to the rat glutamate-binding subunit for the N-methyl-D-asparatete receptor. The nucleic acid encoding HGLUBP as first identified in Insyte clone 386116 from a thymus cDNA library.

HGLUBP is useful for treatment, prevention and diagnosis of central stagnal stagnal in the require an increase or reduction in signal ling through glutamate, e.g. ischaemia, hypoglycaemia, epllepsy, supral ling through glutamate, e.g. ischaemia, hypoglycaemia, epllepsy, such as Alzhahimer's, imunington's, Creutzfeldla-Jakob or Parkinson's diseases, amyotrophic lateral sclerosis or lathyrism, pain, defective motor rhythm, vasomotor tone, baroreception and long-term potentiation, muscale relaxation and sedation. Antibodies can also be used to target plarmaceuticals to HGLUBP expression and to monitor treatment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ٠.
                                                               Human; glutamate-binding protein; HGLUBP; Incyte clone 386116; treatment; prevention; diagnosis; central nervous system disorder; signalling; glutamate; ischaemia; hypoglycaemia; epilepsy; convulsion; schizophrenia; neuroJegeneration; amyotrophic lateral sclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New human glutamate binding protein - useful for treatment, prevention and diagnosis of central nervous system diseases,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3.0%; Score 18; DB 19; Length 1776; [00.0%; Pred. No. 29; ve 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1770 BP; 325 A; 629 C; 448 G; 363 T; 1 other;
DNA encoding human grutamate-binding protein (HGLUBP).
                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
67..1176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BP.
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100.0%; Pre
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           /product= HGLUBP
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Human; secreted protein; proliferative disorder; cancer; tumour; asthma; foetal abnormality; developmental abnormality; haematopoietic disorder; immune system disorder; AIDS; autofinmune disease; rheumatoid arthritis; parkinson's disease; cognitive disorder; schizophrenta; skin disorder; psoriasis; sepsis; diabetes; atherosclerosis; cardiovascular disorder; psoriasis; sepsis; diabetes; atherosclerosis; cardiovascular disorder; aniquamation; neurological disorder; Althenmer's disease; food additive; angiogenic disorder; kidney disorder; gastrointestinal disorder; allergy; pregnancy-related disorder; endocrine disorder; infection; wound healing; containture; chemotaxis; vulnerary; binding partner identification;
                                                                                                                                                                                                                                                                                                                                                                                                                                  AAV19550-V49599 are CDNA sequences which encode numan proteins containing a transmembrane domain. These proteins can be used for, e.g. research and nutrition, and may have cytokine and cell proliferation/differentiation, immune stimulating/suppressing,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human secreted protein-encoding gene 7 cDNA clone HOHEP82, SEQ ID NO:17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       haematopoiesis regulating, tissue growth, activin/inhibin, chemokinetic, haemostatic and thrombolytic, receptor/ligand, anti-inflammatory or tumour inhibition activity.
                       "transmembrane domain containing protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ore 18; DB 19; Length 1824;
red. No. 29;
Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                             Human protein having transmembrane domain - useful for, e.research and nutrition
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1824 BP; 316 A; 656 C; 480 G; 368 T; 0 other;
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                                                                                                                                                                                                                                                               Yamaquchi T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 18;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                       Claim 4; Page 135-137; 205pp; English.
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100.0%; Pré
0;
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                                                                                                                                                                                                                                                                Kobayashi M. Sekine S,
                                                                                                                                                                                                                                CENTRE.
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/product=
369..449
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                                                                                                                                          97WO-3P04056
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                                    /pro.uct=
133..1248
                                                                                                                                                                                                           (PROI-) PROTEGENE IN: (SAGA) SAGANI CHEM KES
                     /*tag=
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P-PSDB; AAW64535.
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Tes 18; Conserv
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                                                                                                                                                                              13-NOV-1996;
                                                                        W09821328-A2
                                                                                                                                           07-NOV-1997;
                                                                                                           22-MAY-1558
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention provides the protein and coding sequences of novel proteins from a variety of organisms, including human, dog, cat, horse, cow, pig, hamster, monkey, macaque, yeast, bacteria, fruit fily, sea urchin and tomator These were derived from expressed sequence tags (ESTs) from the organism of interest. They can be used in diagnostics, forensics, gene mapping, identification of mutations, to assess biodiversity and for nutritional purposes. The present sequence is a cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Transmembrane domain; human; nutrition; cytokine; cell proliferation; differentiation; immune system; stimulator; suppressor; regulator; heamatopoiesis; activin; inhibitor; chemotactic; chemokinetic; receptor; haemostatic; thrombolytic; ligand; anti-inflammatory; tumour; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        isolated polypeptide for treatment of diseases, diagnostics, raising antibodies and research use
                                                           Human; sheep; pig; cow; fruit fly; yeast; hamster; macaque; horse; tomato; monkey; dog; sea urchin; expressed sequence tag; EST; diagnostics; forensic test; gene mapping; genetic disorder; blodiversity; gene therapy; nutrition; ss.
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                                                                                                                                                                                                                                                                                                                                                                                                                      Chen R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
                          Human EST-derived coding sequence SEQ 1D NO: 640.
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J, Werhman T;
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red. No. 29;
Mismatches
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Page 610-611; 1275pp; English.
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100.0%; Pre-
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25-JAN-2000; 2000US-0491404.
17-JUL-2000; 2000US-0617746.
03-AUG-2000; 2000US-0631451.
15-SEP-2000; 2000US-0663870.
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                                                                                                                                                                                                                                                                25-JAN-2001; 2001WO-US02687
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
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Matches 18; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    of the invention.
                                                                                                                                                                                                                                                                                                                                                                                         (HYSE-), HYSEQ INC
                                                                                                                                                                                                                                                                                                                                                                                                                                Liu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P-PSDB; AAM24124
                                                                                                                                                                                             WO200154477-A2.
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                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                02-AUG-2001.
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Gaps

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WO200134629-A1.

17-MAY-2001

mat_peptide

preservative

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TLE-2; transducin-like enhancer of split protein; differentiation;
protein transport; cervix cancer; dysplasia; malignancy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New human transducin-like enhancers of split protein - and associated multi-protein complexes, chimeric proteins, antibodies, nucleic acid, etc., involved in nuclear-cytoplasmic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Redhead NJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Page 58-61; 112pp; English.
                                                                                                                                                                                                                                                                               Location/Qualifiers
26..2257
/*tag= a
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
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                                                         10-SEP-1994 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Artavanis-tsakonas S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 18; Conserva
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (UYYA ) UNIV YALE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein transport
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P-PSDB; AAR51477
                                                                                                         Human TLE-2 gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-SEP-1992;
                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                               WO5408037-A.
                                                                                                                                                                                                                                                                                                                                                                                                                             14-APR-1994.
                     AQ62176;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 15
AAQ45334/C
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAD05220-AAD05282 represent cDNAs corresponding to 21 human secreted protein genes, and AAE0135-AAE01413 represent the protein they encode. protein genes, and AAE0135-AAE01415 represent the protein frequency or variants. The secreted proteins and their genes are useful for preventing, treating or ameliorating medical conditions, e.g., by protein or gene therapy. CC or ameliorating medical conditions, e.g., by protein or gene therapy. CC the new genes. Specific uses are described for each of the 21 genes, the new genes. Specific uses are described for each of the 21 genes, based on the tissues in which they are most highly expressed, and include developing products for the diagnosis or treatment of proliferative disorders, diseases of the immune system, AIDS, autoimmune constraints of alsorders, diseases of the immune system, AIDS, autoimmune diseases (e.g., rheumatoid arthritis), inflammation, allergies, neurological disorders, diseases of the immune system, AIDS, autoimmune constraints and sorders, schrzophrenia, skin disorders (e.g., Alzheimer's disease, Parkinson's disease), cognitive disorders, diabetes, atherosclerois, cardiovascular disorders, anglogenic disorders, atherosclerois, cardiovascular disorders, anglogenic disorders, and constraints, and can be used to aid wound healing and epithelial cell corresponders and in chemotrakis, and can be used as a food additive or proteins can also be used to aid wound healing and epithelial cell corresponders and in chemotrakis, and can be used as a food additive or proteins can also be used to aid wound healing and epithelial cell corresponders and in chemotrakis, and can be used as a food additive or proteins can also be used and an ease as a food additive or or protein of the invention can be used in alleviating symptoms associated corresponders mentioned above, and in diagnostic immunoassay e.g., with the disorders and bove, and in diagnostic immunoassay e.g., adicidentive immunoassay or enzyme inhead above, and in diagnostic immunoassay or enzyme inheads.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             present sequence represents a human secreted protein encoding CDNA of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New nucleic acid encoding one of 21 human secreted proteins for diagnosing, preventing, treating or ameliorating medical conditions, such as autoimmune disease and cancer, and used as a food additive or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          radioimmunoassay or enzyme linked immunosorbent assay (ELISA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 18; DB 22; Length 2055;
Pred. No. 29;
                                                                                                                                                                                                                                                                                                                                                                 Ruben SM, Komatsoulis GA, Wei P, Fiscella M, Baker KP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                     /product= "Mature human secreted protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 2055 BP; 532 A; 629 C; 566 G; 319 T; 9 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; Page 384-385; 490pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAQ62176 standard; cDNA; 2271 BP.
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100.08; Pie
                                                                                                                                                                                                                                                                                                                             (HUMA-) HUMAN GENOME SCI INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 284 gctggagactctgcccag 301
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                                                                                                                                                                                                                                                              12-NOV-1999; 99US-0164835.
27-JUL-2000; 2000US-0221142.
                                                                                                                                                                                                              08-NOV-2000; 2000WO-US30654
                                                                                                                                                                                                                                                            99US-0164835
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Best Local Similarity 100.
Matches 18; Conservative
         /*tag= b
450..485
/*tag= c
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P-PSDB; AAE01358.
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The nucleotide and deduced as sequences of human transducin-like enhancer of split proceins TLE-1 (AAQ62175, AAR51476), TLE-2 (AAQ62176, AAR51477), TLE-3 (AAQ62177, AAR51478) and TLE-4 (AAQ62178, AAR51479) that of Drosophila E(spl)ms/10 protein (AAR51481). Comparison of the WD-40 domains of these proteins defined the consensus residues shown in AR81480. The action of the proteins were compared with those of the SV40 T actions in the proteins were compared with those of the SV40 T actions properly human p53, human A-myb and dorsal proteins with respect to nuclear localization sites (sequences AAR51482-56). TLE can be used to treat or diagnose (pre) neoplastic conditions, or to study cell differentiation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
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100.0%; Pred. No. 29;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2271 BP; 437 .A; 751 C; 672 G; 411 T; 0 other;
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RESULT 14 AAQ62176/C Ω

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misc_feature
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ID AAX40
  CP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          UNC-53; Caenorhabditis elegans; microtubule; neural regeneration; anticancer; anti-neurodegeneration; antifibrotic; anti-adhesive; human; antisclerotic; antimetastatic; anti-arthritic; aqtoimmune disease; ss.
                                                                                                                                                                                                                                                                                                                                       enhancer of split proteins TLE-1 (AAQ45333, AAR51109), TLE-2 (AAQ45334, AAR51110), TLE-3 (AAQ45335, AAR51111) and TLE-4 (AAQ45336, AAR52553) were determined. The aa sequences were compared with that of Drosophila E(spl) m9/10 (AAR52955). Comparison of the WD-40 domains
                                                                                                                                                                                                                                                                                                                                                                               of these proteins defined the consensus residues shown in AAR$9954. The CcN motifs of the proteins were compared with those of SV40 I antigen, human c-myc, human p53, human A-myb and dorsal protein with respect to nuclear localization site, and casein-kinase and cd2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                       TLE-2; transducin-like enhancer of split protein; cell fate;
differentiation; cervix cancer; breast cancer; psoriasis; baldness;
                                                                                                                                                                                                                                                                                                                                  nucleotide and deduced as sequences of human transducin-like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                      Transducin-like enhancer or split proteins and nucleic acids - are for treament of disorders of cell fate or differentiation e.g. cervical cancer, breast cancer, psoriasis, baldness etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 18; DB 15; Length 2271; Pred. No. 29; 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human homologue of UNC-53 (Hs-UNC-53/2) nucleotide sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 2271 BP; 437 A; 751 C; 672 G; 411 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                         kinase phosphorylation sites (sequences AAR52956-70).
                                                                                                                                                                                                                                                                                                               Disclosure; Page 91-94; 147pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                    Location/Qualifiers
26..2257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAA07836 standard; cDNA; 7746 BP
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100.0%; Pit
                                                                                                                                                                                                                          Stifani S;
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                                                                                                                                                                 93WO-US09339.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                       /*tag=
                                                                                                                                                                                                                          Artavanis-tsakonas S,
                                                                                                                                                                                                                                             WPI; 1994-135221/16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity
Matches 18; Conserv
                                                                                                                                                                                                      (UYYA ) UNIV YALE.
                                                                                                                                                                                                                                                      P-PSDB; AAR51110
        Human TLE-2 gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                     30-SEP-1992;
                                                                   Homo sapiens
                                                                                                                                                                  30-SEP-1993;
                                                                                                                            WO9407522-A
                                                                                                                                               14-APR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAA07836;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
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The invention provides vertebrate (human) protein homologue of a UNC-53 protein of Caenorhabdils elegans. The UNC-53 binds to microtubules or their plus ends. The UNC-53 sequences are used to promote neural creaming regeneration. The UNC-53 sequences are used to promote neural creaming regeneration. The UNC-53 sequences are used to promote neural creaming diseases (e.g. rheumatoid arthritis and sclerosis). The UNC-53 autoimmune diseases (e.g. rheumatoid arthritis and sclerosis). The UNC-53 autoimmune diseases (e.g. rheumatoid arthritis and sclerosis). The UNC-53 as a source of probes for detecting allelic variants and polymorphisms, for sequencing genomic DNA and for detecting UNC-53 expression; and as source of therapeutic antisense sequences. Cells that express the protein are used to identify regulators of cells that express the concern of the protein and as source of therapeutic antisense sequences. Cells that expression; and as source of therapeutic antisense sequences. Cells that expression and as concern of the capeutoid transduction pathways also involving UNC-53, and to involved in signal transduction pathways also involving UNC-53, and to involved in signal transduction pathways also involving UNC-53, and to target gene to a cellular microtubule or its plus ends. The present the target gene to a cellular microtubule or its plus ends. The present coll unc-63 deservants in involved.
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                                                                                                                                                                                                                                                                                                                                                                                   /*tay* c
/note= "this region is found to be absent in a
variant cDNA isolated from frontal cortex:
Absence of this fragment results in an out-of-
irame deletion of 101 basepairs, resulting in
premature stop in translation*
                                 a "this region can be replaced with one of the three sequences shown in AAAO7837 to AAAO7839; this provides three variants for the 5' end of the gene"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel proteins and nucleic acids e.g. for treating neurodegeneration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö;
                                                                                                                                                                                                                                               /note= "this region is found to be absent in a variant cDNA from Hela and colorectal
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100.0%; Pred. No. 28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bogaert TAOE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 7746 BP; 1983 A; 2335 C; 2010 G; 1410 T; 8 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
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Verhasselt P, Van De Craen M;
                                                                                                                                                                                                                                                                                                                   adenocarcinoma tissue"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 of UNC-53, designated Hs-UNC-53/2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3.00,
100.0%; Pic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAX40983 standard; cf.HA; 298 BP.
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/*tay=
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P-PSDB; AAY85565.
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Best Local Similarity
Matches 18; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Luyten WHML,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Maerten LJS,
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                                                                                                                                                                                                misc_feature
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WO9906554-A2. Homo sapiens

31-JUL-1998; 01-AUG-1997;

11-FEB-1999

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The present sequence is one of a large number of 5' ESTs derived from mRNAs encoding secreted proteins. No ORF has yet been conclusively identified within the present sequence. The 5' ESTs were prepared from total human RNAs or polyA+ RNAs derived from 30 different tissues. EST sequences usually correspond mainly to the 3' untranslated region (UTR) of the mRNA because they are often obtained from oligo-dT primed cDNA libraries. Such ESTs are not well suited for isolating cDNA sequences derived from the 5' ends of mRNAs and even in those cases where longer CDNA sequences have been obtained, the full 5' UTR is rarely included. 5' ESTs are derived from mRNAs with intext 5' ends and can therefore be used to obtain full length cDNAs and genomic DNAs. 5' ESTs are also used in diagnostic, forensic, gene therapy and chromosome mapping procedures.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sequence tag; secreted protein; cDNA isolation;
                                                                                                         5' ESI; expressed sequence tag; secreted protein; cDNA isolation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        diagnostic, forensic, gene therapy and chromosome mapping procedures
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New nucleic acid that is a 5' expressed sequence tag (5' EST) for obtaining cDNAs and genomic DNAs that correspond to 5'ESTs and for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 17; DB 21; Length 385; 
Pred. No. 95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 385 BP; 94 A; 83 C; 122 G; 84 T; 2 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human secreted protein 5' EST, SEQ ID NO: 11058.
                                                      Human secreted protein 5' ESI, SEQ ID NO: 11037.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Giordano J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    claim 1; SEQ ID 11037; 71pp + CD-ROM; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene therapy; chromosome mapping; ss.
                                                                                                                                     gene therapy; chromosome mapping; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Duclert A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                expression and secretion vectors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAC06983/c
ID AAC06983 standard; cDMA; 413 BP.
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                                                                                                                                                                                                                                                                                                                         21-FEB-2000; 2000EP-0200610.
                                                                                                                                                                                                                                                                                                                                                                          99US-0122487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          477 aaggatgccaagaagga 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  185 AAGGATGCCAAGAAGGA 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                 06-OCT-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 2.8
Best Local Similarity 100.
Matches 17; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Dumas Milne Edwards J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2000-500381/45.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EST;
                                                                                                                                                                                                                                                                                                                                                                                                                         (GEST ) GENSE!
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                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                          26-FEB-1999;
                                                                                                                                                                                                                                EP1033401-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAC06983;
                                                                                                                 Human;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              human secreted proteins, and encode the proteins given in AXV0602 and human secreted proteins, and encode the proteins given in AXV0602 and AXV11994 to AXV1200, respectively. The proteins given in AXV01602 and AXV11994 to AXV1200, respectively. The proteins given in AXV01602 and aXV11994 to AXV1200, respectively. The protein given represent the signal peptide and an N-terminal fragment of a secreted human gene nucleic acid sequences can be used for producing secreted human gene products. They can also be used for producing secreted human gene therapy. The proteins obtained may have cytokine activity, cell proliferation/differentiation activity, haematopoiesis regulating activity, receptor/ligand activity, haemostatic and regulating activity, receptor/ligand activity, anti-inflammatory thrombolytic activity, receptor/ligand activity, anti-inflammatory activity, tumour inhibition activity or other activities. The products can be used in forensic, gene therapy and chromosome mapping promoter sequences. The nucleic acids encoding the signal peptide can be used for directing extracellular secretion of a polypeptide or the insertion of a polypeptide into a membrane, or importing a polypeptide into
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    o;
                                                                                                                                                      Human; secreted protein; EST; expressed sequence tag; diagnosis; forensic; gene therapy; chromosome mapping; signal peptide; upstream regulatory sequence; cytokine activity; cell proliferation; differentiation; haematopoiesis regulation; tissue growth regulation: reproductive hormone regulation; chemotactic; chemokinetic; haemostatic; thrombolytic; anti-inflammatory; tumour inhibition; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New nucleic acids encoding human secreted proteins - obtained from cDNA libraries prepared from kidney, fetal kidney, dystrophic muscle, muscle and heart tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Duclert A, Dumas Milne Edwards J, Lacroix B;
                                                                                                              Human secreted protein 5' EST SEQ ID NO: 195.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 17;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 292; 622pp; English.
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100.0%; Piv
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ID AAC06962 standard; cDNA; 385
XX
AC AAC06962:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97US-0905134
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               125 cgggcggctgctgaaga 141
                                                                  18-JUN-1999 (first entry)
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Best Local Similarity 100.
Matches 17; Conservative
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AAC74446 to AAC77606 encode the proteins given in AAB40237 to AAB43397,
                                                                                                                                                                                                                                                                                           Novel nucleic acids and peptides derived from open reading frame X,
                                                                                                                                                                                                                                                                                                         useful for treating e.g. cancers, proliferative disorders, neurodegenerative disorders and cardiovascular disease
                                                                                                                                                                                                                                                                                                                                                            Claim 5; Page 2627; 5507pp; English.
                                                                                          31-MAR-1999; 95US-0127607.
02-APR-1999; 95US-0127636.
05-APR-1999; 99US-0127728.
30-MAR-2000; 2000US-0540763.
                                                            31-MAR-2000; 2000WO-US08621
                                                                                                                                                                            (CURA-) CURAGEN CORP.
                                                                                                                                                                                                               Shimkets RA, Leach
                                                                                                                                                                                                                                                WPI; 2000-602362/57.
                                                                                                                                                                                                                                                                P-PSDB; AAB41963
WO200058473-A2
                                                                                                            02-APR-1999;
05-APR-1999;
                             05-OCT-2000.
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                                                                                                                                                                                                                                                                                                      The present sequence is one of a large number of 5' ESTs derived from mRNAs encoding secreted proteins. No ORF has yet been conclusively identified within the present sequence. The 5' ESTs were prepared from total human RNAs or polyA+ RNAs derived from 30 different Lissues. EST sequences usually correspond mainly to the 3' untranslated region (UTR) of the mRNA because they are often obtained from oligo-dT primed CDNA libraries. Such ESTs are not well suited for isolating cDNA sequences derived from the 5' ends of mRNAs and even in those cases where longer CDNA sequences have been obtained, the full 5' UTR is rarely included. 5' ESTs are derived from mRNAs with intext 5' ends and can therefore be used to obtain full length cDNAs and genomic DNAs 5' ESTs are also used in diagnostic, forensic, gene therapy and chromosome mapping procedures.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; open reading frame; ORFX; detection; cytostatic; hepatotropic; vulnerary; antipsoriatic; antiparkinsonian; nootropic; neuroprotective; anticonvulsant; osteopathic; antiarthritic; immunosuppressant; cardiant; immunostimulant; thrombolytic; coagulant; vasotropic; antidiabetic; hypotensive; dermatological; immunosuppressive; antiinflammatory; antiviral; antibacterial; antifungal; antirheumatic; antithyroid; antianaemic; gene therapy; cancer; prolliferative disorder; hypertension; neurodegenerative disorder; osteoarthritis; graft vs host disease; cardiovascular disease; diabetes mellitus; hypothyroidism; SIDE; AIDS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  choissterol ester storage, systemic lupus erythematosus; infection; severe combined immunodeficiency; malaria; autoimmune disorder; asthma; allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound; bone damage; cartilage damage; antiinflammatory disease; coagulation; thrombosis; contraceptive; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                             New nucleic acid that is a 5' expressed sequence tag (5' EST) for obtaining cDNAs and genomic DNAs that correspond to 5'ESTs and for diagnostic, forensic, gene therapy and chromosome mapping procedures
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2.8%; Score 17; DB 21; Length 413; 100.0%; Pred. No. 95; Ve 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human ORFX ORF1727 polynucleotide sequence SEQ ID NO:3453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 413 BP; 95 A; 103 C; 115 G; 100 T; 0 other;
                                                                                                                                                Duclert A, Giordano J;
                                                                                                                                                                                                                                                                                 Claim 1; SEQ ID 11058; 71pp + CD-ROM; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              expression and secretion vectors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2.5.,
100.0%; Pre-
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                                                  21-FEB-2000; 2000EP-0200610.
                                                                                 99US-0122487.
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Les 17; Conservative
                                                                                                                                                Dumas Milne Edwards J,
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                                                                                                                  (GEST ) GENSET.
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                                                                                 26-FEB-1999;
                   06-SEP-2000.
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Matches
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canalysis to many the human ORFX open reading frames 1 to 3161. The ORFX sequences have activities such as: cytostatic; hepatotropic; vulnerary; antiposofiatic antiporakinsonian; nootropic; neuroprotective; catiopathic; anticonvulsant; antiarthritic; immunosuppressant; cateopathic; anticonvulsant; thrombolytic; coagulant; vasotropic; antidabetic; hypotensive; dermatological; immunosuppressive; antidabetic; hypotensive; dermatological; antiviral; antiviral; antitingal; antithenatic; antithyroid; and antianeamic. The sequences can be used for determining the presence of or predisposition to, or preventing or treating pathological conditions associated with an ORFX associated disorder. The nucleic acids can be used to express ORFX proteins in gene therapy; proliferative disorders, neurodegenerative disorders, osteoarthritis, proliferative disorders, neurodegenerative disorders, osteoarthritis, graft vs host disease, cardiovascular disease, diabetes mellitus, chypertension, hypothyroidism, cholesterol ester storage, systemic lupus erythematosus, severe combined immunodeficiency (SCID), AIDS, viral, bacterial or fungal infection, malaria, autoimmune and cartilage damage, nocturnal hæmoglobinuria, antiinflammatory disease; to enhance combined immunodesis; and as a contraceptive.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Leek; glossy8 homologue; gl8; cuticle; cuticular lipid biosynthesis;
lipid composition; lipid quantity; disease resistance; pest resistance;
wind resistance; frost resistance; UV resistance; transgenic plant;
antisense inhibition; ds.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 477 BP; 113 A; 108 C; 162 G; 92 T; 2 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAA57874 standard; cDNA; 872 BP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAA57874;
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Schnable PS,
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AAH50961/c
 CDS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         D.C
                                                                                                                                                                                                                                                                                          The invention relates to transforming a plant cell with either a nucleic acid encoding a plant cuticular lipid biosynthetic protein, or an acid encoding a plant cuticular lipid biosynthetic protein, or an anticase mucleic acid sequence targetted to a plant cuticular lipid cantisense nucleic acid sequence targetted to a plant cuticular lipid genes that may be used in the invention are given in a CAASTSA1-A5784 and AAAST81. The cuticie consists of a meshwork (cutin) of cross-seterified polymerised hydroxy fatty acids embedded in a complex mixture of nonpolar lipids (the cuticular wax). The cuticular process and filters UV radiation. Mutations in the cuticular lipid genes affects the quantity and composition of cuticular lipids; in maize, 17 cloci (the glossy (gl) genes) have been identified as being in involved in cuticular lipid blossynthesis or control. The method is useful for cuticular lipid blossynthesis or control. The method is useful for introducing a nucleic acid into a cell preferably of maize, soybean, crapeseed, cannola, cotton, safflower, peanut, palm or sunflower plant and generating a plant from the plant cell. The transformed plants have improved environmental resistance relating to wind, frost, UV or drought; fungal, bacterial or viral disease resistance: pest resistance; and altered lipid content in seeds. Sequences AAAS7874-A57875 represent leek
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Leek; glossy8 homologue; gl8; cuticle; cuticular lipid biosynthesis; lipid composition; lipid quantity; disease resistance; pest resistance; wind resistance; frost resistance; UV resistance; transgenic plant; antisanse inhibition; ds.
                                                                                                                                                                                                                Transforming plants such as maize and canola, for producing new plant varieties having disease and pest resistance involves introducing cuticular lipid genes into the plant genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                               Hansen JD
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Pred. No. 93;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                               Robertson DS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Leek glossy8 (gl8) homologue partial cDNA, SEQ ID NO:6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 872 BP; 269 A; 219 C; 165 G; 219 T; 0 other;
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0
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                                                                                                                                                               Nikolau BJ, Xu X, Xia Y,
                                                                                                                                      (IOWA ) UNIV IOWA STATE RES FOUND INC.
                                                                                                                                                                                                                                                                         Claim 1; Column 25-26; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAA57875 standard; cDNA; 872 BP.
                                                                                95US-0581148
                                                                                                             9405-0218028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               209 TCAAGGATGCCAAGAAG 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 475 tcaaggatgccaagaag 491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                           WPI; 2000-349707/30.
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       Allium porrum
                                                                                                                                                                 Schnable PS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-OCT-2000
                                                                                                              24-MAR-1994;
                                                                                   29-DEC-1995;
                               US6060644-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAA57875;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 22
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The invention relates to transforming a plant cell with either a nucleic acid encoding a plant cuticular lipid biosynthetic protein, or an acid encoding a plant cuticular lipid sequence targetted to a plant cuticular lipid genes and then generating a plant from the plant cell. The cuticular lipid genes that may be used in the invention are given in the lipid genes that may be used in the invention are given in complex mixture of nonpolar lipids (the cuticular wax). The cuticular of complex mixture of nonpolar lipids (the cuticular wax). The cuticular complex mixture of nonpolar lipids (the cuticular wax). The cuticular lipid genes to receive and strengthens the plants, prevents evaporation of internal conficts the quantity and composition of cuticular lipids; in maize, 17 couticular lipid biosynthesis or control. The method is useful for introducing a nucleic acid into a cell preferably of maize, soybean, capessed, canola, cotton, safilower, peanut, palm or sunflower plant and generating a plant from the plant cell. The transformed plants have improved environmental resistance relating to wind, frost, Wor drought; fungal, bacterial or viral disease resistance; sest resistance; and altered lipid content in seeds. Sequences AAS7875 represent leek
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                     /product= "Leek glossy8 homologue protein fragment" /note= "No initiation or termination codon given in the specification"
                                                                                                                                                                                                                                                                                                                                                                                                                             /*tag- c
//note~ "The amino acids encoded by this region are not
/note~ "The amino acids encoded by this region are not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Transforming plants such as maize and canola, for producing new plant varieties having disease and pest resistance involves introducing cuticular lipid genes into the plant genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                           /transl_except= (pos:282..285, aa:31y)
/note= There is an apparent 1 base insertion which
alters the reading frame*
/transl_except= (pos:463..464, aa:Ala)
/note= There is an apparent 1 base deletion which
alters the reading frame*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nikolau BJ, Xu X, Xia Y, Robertson DS, Hansen JD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
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Pred. No. 93;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 872 BP; 219 A; 165 C; 218 G; 270 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (10WA ) UNIV IOWA STATE RES FOUND INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; Column 27-28; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Pritive 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          95US-0581148.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               94US-0218028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            664 tcaaggatgccaagaay 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              475 tcaaggatgccaagaug 491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                          /partial
                                                                                                                                                                                                                                                                                                                                                                                   603..872
/*tag-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2000-349707/30.
P-PSEB; AAB03103.
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Best Local Similarity
Marches 17; Conserv
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28-AUG-2001

AAH50961;

31-MAY-2001

Lerchl J,

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The invention relates to constitutively active, non-endogenous versions of endogenous in the invention of the protein coupled receptors (GFCRs, AAY96643-CC AAY9677 and AAN30773-A30743 and to DNA encoding them (AAA30709-A30743 and AAA30773-A30779). The mutant proteins of the invention contain a mutation in a partion of the protein comprising intracellular loop 3 cc (163) and transcambrane domain 6 (TMB). A non-endogenous amino acid, X, is substituted or an endogenous residue in IC3 at a position 16 amino acids Netermina. Of an endogenous proline in TMG to form a sequence of a substituted and is preferably Lys. When the endogenous residue at this consition is Lys. this residue is replaced by His, Arg or preferably Ala.

The 15 amino acid stretch between the substituted and the Promay be endogenous, non-endogenous, or a mixture of endogenous and non-endogenous. The constitutively active GFCRs are useful for identifying antigonists, adonists and partial agonists for all seasons of the receptors in normal and settings for elucidating the roles of the receptors in normal and consisting all services and partial and is Antagonists for a particular GPCR are useful for the reservice and seasons and the propertion and all services and and an antal agonists for elucidating the roles of the receptors in normal and consisting diseased conditions. Antagonists for a particular GPCR are useful for the reservice and seasons.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              present sequence represents CDNA encoding a human wild-type an exemplification of the invention. This was cloned and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         treating diseases and disorders associated with that receptor. Because the novel mutan GPCRs are constitutively active, they can be used directly for screening of compounds without the need for endogenous ligands. The present sequence represents CDNA encoding a human wild-type treatments and the compounds without the need for endogenous and the compounds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     site-directed mutagenesis (SDM) to generate DNA encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Non-endogenous constitutively activated human G protein-coupled receptors, useful for identifying agonists for use as pharmaceutical
                                                                                                        G protein-coupl d receptor: GPCK; constitutively active; intracellular 1.3p 3; transmembrane domain 6; drug screening; agonist; antagomist; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 1020 BF; 174 A; 364 C; 261 G; 221 T; 0 other;
                                                                  Human G protein Joupled receptor GPR17 cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the corresponding mutant of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2.8%; Score 17;
100.0%; Pred. No.
:ive 0; Mismatch
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 1; Page 125-126; 341pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Liaw CW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAA30718 standaid; DNA; 1020 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ,5WC-US23938
                                                                                                                                                                                                                                                                                                                                                                                                                                  ,aUS-0170456
                      (I.:st entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Behan DP, Chalrers DI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (AREN-) ARENA FRARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2000-32916:/28.
P-PSDB; AAY9061s.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
Matches 17; Conserv
                                                                                                                                                                                                                                                                             WO200022125-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GPCR used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                subjected to
                                                                                                                                                                                                                                                                                                                                                                                                                                          13-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                   12-0CT-1999;
                                                                                                                                                                                                                                    Homo sapiens
                      21-AUG-2000
                                                                                                                                                                                                                                                                                                                                  20-APR-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAA30718
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention describes isolated nucleic acid sequences which encode lipid metabolism related proteins (LMRP). The LMRP nucleic acids can be used to modify lipids and fatty acids, cofactors and enzymes in microorganisms and plants, particularly to produce polyunsaturated fatty acids, and are especially useful in ollseed plants. The nucleic acids may also confer biotic or abiotic stress tolerance, particularly to cotton, rapeseed, canola, manihot, pepper, sufflower, tagetes, potato, tobacco, eggplant, tomato, vicia species, pea, alfalfa, coffee, cacao, tea, salix species, oll palm, occontu, perennial grasses and forage crops. AAH50078 to AAH50882 tepresent primers used in the exemplification of the present invention. AAH50883 to AAH50868 tepresents LMRP nucleotide sequences, and AAG80841 to AAH50828 represent LMRP protein sequences,
                                                                                                                                                                                                   Moss; physocmitrella patens; lipid metabolism related protein; LMRP; lipid biosynthesis; lipid modification; lipid degradation; cofactor; fatty acid transport; genetic emplinering; fatty acid; enzyme; plant; microorganism; polyunsaturated fatty acid; oilseed plant; maize; wheat; biotic stress tolerance; abiotic stress tolerance; rye; oat; triticale; rice; barley; soybean; peanut; cotton; rapeseed; canolas; manihot; peaper; sunflower; tagetes; potato; tobacco; eggplant; tomato; Vicia; per; alfalfa; coffee; cacao; tea; Salix; oil palm; coconut;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nucleic acids encoding lipid metabolism related proteins from physicomitrella patens useful to produce fine chemicals in modified organisms, particularly polyunsaturated fatty acids in oilseed plants
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bischoff F;
                                                                                                                                                            Phosphatidylinositol synthase partial clone nucleotide sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
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100.0%; Pred. No. 93;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cirpus P,
Reski R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 991 BP; 281 A; 214 C; 209 G; 287 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Reindl A,
Schmidt R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 7; Page 105; 120pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2.5.,
100.0%; Pre-
0;
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Duwenig E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             present invention.
        AAH50961 standard; cDNA; 991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22-NOV-2000; 2000WO-EP11615.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-EP09108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (BADI ) BASF PLANT SCI GMBH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               143 gccactccgaaagctgc 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240 GCCACTCCGAAAGCTGC 224
                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 2.8
Best Local Similarity 100.
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Physcomitrella patens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Frank M, Freund A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2001-367669/38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200138484-A2
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Gaps

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Mismatches

AAA30601;

RESULT 24 AAA30601

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21; Length 1020; Indels

DB 2

Forosamine; trimethylrhamnose; polyketide synthase; biosynthesis; spinosyn; polyketide aglycone; transgenic plant; insect resistance; macrolide; insecticidal; O-methyltransferase; ds.

Saccharopolyspora spinosa.

DE19957268-A1.

SEQ ID 17.

S. spinosa DNA fragment encoding ORF5,

(first entry)

28-AUG-2001

in Pr

AAF88323 standard; DNA; 1194

Salas JA;

Velten R,

Froede R,

Eberz G, Moehrle V, WPI; 2001-267102/28. P-PSDB; AAB70953

(FARB) BAYER 27-AUG-1999;

99DE-1057268 99DE-1040596

29-NOV-1599; 08-MAR-2001.

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treating diseases and disorders associated with that receptor. Because the novel mutant GPCRs are constitutively active, they can be used directly for screening of compounds without the need for endogenous ligands. Sequences AAA30709- AAA30743 and AAA30775-A30779 represent DNAs
                                                                                                                                                                                                                                                                         Non-endogenous constitutively activated human G protein-coupled receptors, useful for identifying agonists for use as pharmaceutical
                                          human mutant G protein-coupled receptor GPR17 (V234K).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2.8%; Score 17; DB 21; Length 1020; 100.0%; Pred. No. 93; ive 0; Mismatches 0; Indels (
                                                          G protein-coupled receptor; GPCR; constitutively active;
intracellular loop 3; transmembrane domain 6; drug screening;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1020 BP; 177 A; 364 C; 259 G; 220 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 encoding the mutant human GPCRs of the invention.
                                                                                                                                                                                                                                                                                                                   Example 2; Page 232-233; 341pp; English.
                                                                                                                                                                                                                              Chalmers DT, Liaw CW;
                                                                                agonist; antagonist; mutant; ss.
                                                                                                                                                                     99WO-US23938.
                                                                                                                                                                                         98US-0170496
                          21-AUG-2000 (first entry)
                                                                                                                                                                                                           (AREN-) ARENA PHARM INC
                                                                                                                                                                                                                                                 WPI; 2000-329165/28
                                                                                                                                                                                                                                                           P-PSDB; AAY90652
                                                                                                                                WO200022129-A1
                                             DNA encoding
                                                                                                      Homo sapiens.
                                                                                                                                                                      12-OCT-1999;
                                                                                                                                                                                         13-OCT-1998;
                                                                                                                                                  20-APR-2000
                                                                                                                                                                                                                              Behan DP,
                                                                                                             Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
         AAA30718;
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This invention describes a novel method nucleic acid (I) and its encoded polypeptide (II) containing at least one region that encodes an enzymatic activity involved in biosynthesis of spinosyns. (I) are used (I) to identify, inectivate or modulate genes involved in the biosynthesis of identify, incrtivate a library of polyketide synthases; (II) for adding forosamine or trimethylrhamnose to a spinosyn or polyketide adding forosamine or trimethylrhamnose to a spinosyn or polyketide adjunctives, which are used for production of (II), their precursors or derivatives, including production of transgenic plants that express (II) and markers for sequencing of the Saccharopolyspora spinosa genome. (II) are markers for sequencing of the Saccharopolyspora spinosa genome. (II) are spression clones in a gene bank. Cells transformed with (I) may produce expression clones in a gene bank. Cells transformed with (I) may produce (II) at significantly increased levels or produce new derivatives of (II) the control of the secuence of the secuence of the control of the secuence of the control of the secuence of the control of the secuence of the secuenc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New nucleic acid encoding enzymes for spinosyn biosynthesis, useful for recombinant production of insecticidal spinosyns and their derivatives
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 22; Length 1194;
92;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
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100.0%; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 7a; Page 121-124; 354pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAC93490 standard; cDNA; 1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               329 gcgcatcctggagatcg 345
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Best Local Similarity 100.
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            579 gegeatectggagateg
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAC93490
ID AAC9:
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Best Local Similarity 100. Matches 17; Conservative

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PCR using two primers (AAQ66174, AAQ66175) was performed to amplify a
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                                                                                                                                                                                                                                                                                                       Primer; seven transmembrane receptor; receptor; amplification; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \mathsf{DNA} encoding seven trans:membrane receptors \cdot used to develop prods. for use as therapeutic or diagnostic agents for conditions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2.8%; Score 17; DB 15; Length 1901;
100.0%; Pred. No. 91;
.ive 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /product= Seven transmembrane receptor (R12).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1901 BP; 381 A; 640 C; 508 G; 372 T; 0 other;
                                                                                                                                                                                                                                                Seven transmembrane receptor (R12) coding sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 10; Page 79-80; 100pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Schweickart VL;
                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
701..1720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAV18356 standard; DNA; 1901 BP
                                                                      AAQ66178 standard; DNA; 1901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            53WO-US11153.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1510 cacccagcgcatcctyg 1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    920S-0977452.
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                                                                                                                                                                                            (first entry)
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Best Local Similarity 100.7
Marches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     involving the receptors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Godiska R, Gray PW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1994-200264/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (ICOS-) ICOS CORP.
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                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
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                                                                                                                                                                                            07-FEB-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17-NOV-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9412635-A.
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                                                                                                                                    AAQ66178;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAV18356
                                                    AAQ66178
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Polynucleotide sequences AAC93479 - AAC93527 represent CDNA encoding chiman secreted proteins AAB51827 - AAB51875. Sequences AAB51876 - AAB51875 chiman secreted proteins AAB51827 - AAB51875. Sequences AAB51876 - AAB51875 represent alternative polypeptides encoded by the genes, and amino acid sequences with which they share homology. The genes and camino acid sequences with which they share homology. The genes and camino acid Examples of their activities include immunosuppressive; are expressed. Examples of their activities include immunosuppressive; antiarthritic: antirheumatic; antiproliferative; cytostatic; cardiant; cysotropic; cerebroprotective; nortropic certive; antibacterial; virucide; fungicide; opthalmablogical; and vulnerary. The secreted protectins, preventing and/or diagnosing diseases and disorders such as autoimmune diseases and riminate of infections caused by hacterial architis, hyperproliferative cerebral ischaemia, and jongenesis, nervous system disorders e.g. cerebral ischaemia, anglogenesis, nervous system disorders e.g. Alzheimer's disease.

C. e.g. corneal infection. The polypeptides can also be used to aid wound contained by bacterial viruses and fungi and coular disorders e.g. corneal infection. The polypeptides can also be used to aid wound coulture of prihary tissues, to regenerate tissues and in chemotaxis. The collure of primary tissues, to regenerate tissues and in chemotaxis. The collures of primary tissues, to regenerate fissues and in chemotaxis. The collures of primary interess energy and electrive in preserve the contained and processing the preserve the contained and electroned as a food additive or preserve the contained to be a processing the preserve the contained to be preserved to be a processing the preserved to be preserved to prevent the preserved to prevent preserved to prevent preserved
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                                                 Human; secreted protein; immunosuppressive; antiarthritic; antirheumatic; antiproliferative; cytostatic; cardiant; vasotropic; cerebroprotective; nootropic; neuroprotective; antibacterial; virucide; fungicide; opthalmalogical; vulnerary; autoimmune disease; rheumatoid arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New nucleic acid molecules encoding 49 human secreted proteins for diagnosing, preventing or ameliorating medical conditions and used for food additives or preservatives -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                      hyperproliferative disorders; cancer; cardiovascular disorder; cardiac arrest; cerebrovascular disorder; nervous system disorder; Alzheimer's disease; ocular disorder; wound healing; skin aging; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21; Length 1258;
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92;
Human secreted protein gene 12 SEQ ID NO:22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 17;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Komatsoulis G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; Page 440; 516pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ..
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100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (HUMA-) HUMAN GENOME SCI INC (ROSE/) ROSEN C A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-APR-1999; 99US-0128698.
20-JAN-2000; 2000US-0176926.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-APR-2000; 2000WO-US09066.
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Best Local Similarity 100.0
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rosen CA, Ruben SM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2000-619227/59
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                                                                                                                                                                                                                                                                                                                                                   WO200061626-A1
                                                                                                                                                                                                                                                                                              Homo sapiens.
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25-SEP-1998 (First entry)

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The present sequence is a novel coding sequence for a seven transmembrane (7TM) receptors (also known as heptahelical, serpentine or G-protein-coupled receptors). The present sequence may be used for gene
                                                                                                                                                                                                                                                                                                                                                 Polynucleotide encoding seven transmembrane receptors, antibody specific to the receptor, agonist and antagonist of the receptor useful for treating inflammation in a mammal \,^{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human IL-1; vaccine adjuvant; neoplastic disease; wound healing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 17; DB 21; Length 1901;
Pred. No. 91;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1901 BP; 381 A; 640 C; 508 G; 372 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 10; Columns 89-94; 61pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence encoding murine IL-1 precursor.
                                                                                                                                                                                                                                                         Godiska R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     therapy for diseases such as cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gubler UA, Lomedico PT, Mizel SB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2.7.
100.08; Pt.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AANSÛ126 standard; cDNA; 1985
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                                                                                                               94US-0245242.
98US-0088337.
92US-0977452.
93US-0153848.
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85US-0720774.
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Best Local Similarity 100.
Matches 17; Conservative
                                                                                                                                                                                                                                                         Schweickart VL, Gray PW,
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                                                                                                                                                                                                                                                                                               WPI; 2000-571335/53.
P-PSDB; AAB21697.
                                                                                                                                                                                                                     (ICOS-) ICOS CORP.
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25-APR-1985;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculis
                                                                                                               17-MAY-1994;
01-JUN-1998;
17-NOV-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29-JCI-1991
                                                                           26-APR-1999;
                                                                                                                                                                             17-NOV-1593;
US6107475-A
                                        22-AUG-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
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  .3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present novel sequence represents the human R12 genomic DNA isolated from a human genomic fetal liver DNA library. The invention claims for the full length V28 genomic DNA sequence (AAV18343) isolated from a human placenta genomic library. The V28 (AAV48722) and R12 proteins are seven transmembrane (7TM) receptors which are probably involved in signal transduction. The invention also claims that cells transformed with V28 bNA can be used to produce the recombinant polypeptide, to produce anti-V28 antibodies or in screening assays for V28 agonists or antagonists. The antibodies, agonists and antagonists could then be used to modulate V28 receptor-ligand binding, for e.g. in immunological and/or inflammatory events in vivo.
                                     V28; placenta; seven transmembrane receptor; 7TM; signal transduction; immunology; inflammation; R12; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Seven transmembrane receptor; 7TM; heptahelical; serpentine; G-protein-coupled; V28; V31; V112; R20; R2; R12; RM3; gene therapy; cançer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA encoding V28 seven transmembrane receptor polypeptide - useful for producing recombinant polypeptide and anti-V28 antibodies, and in screening assays for V28 agonists and antagonists
                                                                                                                                                                                     /*tag* a
/product= "Human R12 seven transmembrane receptor"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 17; DB 19; Length 1901;
Pred. No. 91;
0; Mismatches 0; Indels
    Human R12 seven transmembrane (7TM) receptor genomic DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1901 BP; 381 A; 640 C; 508 G; 372 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 10; Columns 85-88; 56pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                            Schweickart VL;
                                                                                                                                    Location/Qualifiers
701..1720
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human 7TM receptor R12 cDNA clone.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2.u.;
100.0%; Fix
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAA91725 standard; cDNA; 1901 BP
                                                                                                                                                                                                                                                                                                                        93US-0153848
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                            Godiska R, Gray PW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1998-332132/29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                    (ICOS-) ICOS CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       P-PSDB; AAW48733
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                                                                                                                                                                                                                                                                                                                                                                17-NOV-1992;
                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                          17-NOV-1993;
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AAA91725;

RESULT 30

Dp

8

AAA91725

Matches

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Gaps

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0; Indels

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complementary strand of a polynucleotide which comprises a 5 -end complementary strand of a polynucleotide which comprises a 5 -end sequence and an oligonucleotide comprising a sequence complementary to a polynucleotide comprises a 3 'end sequence, where the oligonucleotide which comprises a 3 'end sequence, where the oligonucleotide comprises a 1'end sequence, where the oligonucleotide comprises a 1'end sequence, where the combination of the specification. The primers can be used in antisense therapy and in gene therapy. The primers are useful for synthesising polynucleotides, particularly full-length choks. The primers are also useful for the particularly vill-length choks. The primers are also useful for the cerection and/or diagnosis of the abnormality of the proteins encoded by the full-length choks. The primers allow obtaining of the full-length choks. The primers allow obtaining of the full-length choks acaily without any specialised methods. AAH03646 to AAH13631 copresent human amino acid sequences; and AAH13629 to AAH13632. The present invariant and amino acid sequences; and AAH13629 to AAH13632.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human G-protein thrombin receptor, HIBEB65 - useful to identify (ant)agonists, for treatment of angina. restenosis, wound healing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           G-protein; thrombin; receptor; diagnosis; gene therapy;
haemophilia; wound healing; restenosis; angina; inflammation; ss.
                                                                                                                                                                                                                                                                                                                        22; Length 2040;
                                                                                                                                                                                                                                                                                                                                                        0; Indels
                                                                                                                                                                                                                                                                           Sequence 2040 BP; 629 A; 474 C; 468 G; 469 T; 0 other;
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/note= "3' primer binding site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    primer binding site"
                                                                                                                                                                                                                                                                                                                            DB 2
91;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human G-protein thrombin-like receptor cDNA.
                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                          Score 17;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         complement (548..565)
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548..1567
                                                                                                                                                                                                                                                                                                                     2,8%;
100,0%; Pic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAT44052 standard; cDNA; 2453 BP.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  95WO-US07180
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/note= "5'
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                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                  the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1997-043073/04.
P-PSDB; AAW07617.
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                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 17; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-FEB-1957
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention describes primer sets for synthesising 5602 full-length cDNAs defined in the specification. Where a primer set comprises: (a) an oligo-dT primer and an oligonucleotide complementary strand of a polynucleotide which comprises one of the 5602 nucleotide sequences defined in the specification, where the oligonucleotide comprises at least 15 nucleotides; or (b) a combination
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Primer sets for synthesizing polynucleotides, particularly the 5602 full-length to EDNAs defined in the specification, and for the detection and/or diagnosis of the abnormality of the proteins encoded by the full-length CDNAs.
                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                      Murine II-1 encoding cDNA was used to isolate the structure of a partial genomic clone of human IL-1. IL-1 has utility in stimulating the immune system, especially for the promotion of wound healing, as a vaccine adjuvant, and in protection against neoplastic disease. IL-1 is also useful in treating critically ill protein-malnourished patients and in diagnostic assay systems.
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O
                                      New human interleukin-1 polypeptide(s) - prepd. by recombinant DNA procedures for use in stimulating host immune systems, to promote wound healing etc.
                                                                                                                                                                                                                                                                                               Length 1985;
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                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                  Sequence 1985 BP; 624 A; 436 C; 364 G; 561 T; 0 other;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nishikawa T, Hayashi K, Si
T, Wakamatsu A, Nagai K,
                                                                                                                                                                                                                                                                                                 DB 7;
91;
                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                  Score 17;
Pred. No.
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                                                                                                           Disclosure; Fig 1; 37pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAH14321 standard; cDNA; 2040 BP.
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100.0%;
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99JP-0300253.
2000JP-0118776.
2000JP-0183767.
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                                                                                                                                                                                                                                                                                                                                                                                786 ATAAGCAGCTGATGTCA 770
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                                                                                                                                                                                                                                                                                                                                                                 265 ataagcagctgatgtca 281
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Matches 17; Conservative
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Sugiyama T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-318749/34.
               P-PSDB; AAP60130
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09-JUN-2000;
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11-JAN-2000;
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Ishii S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAH14321;
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31-MAR-2600;
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Best Local :
in the
Note:
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                                                                                                                                                                                               102
                                                                                                                                                             Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sequences from the Coryneform bacterium Corynebacterium glutamicum. These are useful for identifying the mutation point of a gene derived from a mutant of coryneform bacterium, measuring expression amount and analysing the expression profile or expression pattern of a gene derived from coryneform bacterium, and identifying a homologue of a gene derived from coryneform bacterium. Coryneform bacterium coryneform bacterium are useful for producing emino acids, nucleic acids, vitamins, saccharides and organic acids, particularly L-lysine. The present sequence is a nucleic acid described
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel polynucleotides derived from Coryneform bacteria, for identifying mutation point of a gene, measuring expression of a gene, analysing expression profile or pattern of a gene and identifying homologous gene
                                               11
                                                                                                                                                                                                                                                                               G. Gaps
                             A cDNA clone (AAT44092) codes for a human 7-transmembrane receptor (AAW07617) putatively identified as a G-protein thrombin receptor. Was discovered in a human infead on the library. G-protein chrombin-like receptor polynucleotides can be used to produce recombinant receptor in host cells (e.g. E. coli, COS-7, Si's), to design probes for detecting diseases releated to receptor gene mutation, and in gene therapy to treat heamophilia or promote wound healing; antisense sequences can be used to treat inflammation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Yokoi H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention provides a number of nucleotide and protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               amino acid synthesis; vitamin; saccharide;
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                                                                                                                                                                                                                                                18; Length 2453;
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                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                               Sequence 2453 BP; 494 A; 815 C; 640 G; 504 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                coding sequence fragment SEQ ID NO: 1976.
                                                                                                                                                                                                                                                                               0;
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Ozaki A;
                                                                                                                                                                                                                                            DB 1
91;
                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                Score 17;
Pred. No.
Claim 1; Fig 1A-D; 58pp; English.
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Senoh A, Ikeda M,
                                                                                                                                                                                                                                                                                                                                                                                                                                 ВР
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                                                                                                                                                                                                                                              2.8%;
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2000JP-0159162.
2000JP-0280988.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             organic acid synthesis; ds.
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                                                                                                                                                                                                                                                                                                                 323 cacceagegeateetgg 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                Local Similarity 100.
es 17; Conservative
                                                                                                                                                                   restenosis, angina, etc.
                                                                                                                                                                                                                                                                                                                                  Coryneform bacterium;
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03-AUG-2000;
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Tateishi N,
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Matches
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s exemplification of the invention. The sequence data for this patent did not form part of the printed fication, but was obtained in electronic format directly from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAC74146 to AAC7760¢ encode the proteins given in AAB40237 to AAB43397, which represent the timm ORFX open reading frames 1 to 3161. The ORFX sequences have activities such as: cytostatic; hepatotropic; vulnerary; antipsoriatic; antipsitinsonian; noottopic; neuroprotective; osteopathic; auticonvulsant; antiarthritic; immunosuppressant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ×
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                                                                                                                                                                                                                                                                   22; Length 2766;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  disorders,
                                                                                                                                                                                                                                                                                                                                    Indels
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                                                                                                                                                                     623 T; 0 other;
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                                                                                                                                                                                                                                                               DB
50;
                                                                                                                                                                                                                                                                                                                                    Mismatches
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                                                                                                                                                                                                                                                                   Score 17;
Pred. No.
                                                                                                                                                                  Sequence 2766 BP; 695 A; 610 C; 838 G;
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                                                                                                                                                                                                                                                               Ch 2.6%; Scillarity 100.0%; P 17; Conservative 0;
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AAC75611/c
ID AAC75611 standard; cL:MA; 2813
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02-APR-1999; 95US-0127636.
05-APR-1999; 99US-0127728.
30-MAR-2000; 2000US-0540763.
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                                                                                                                                                                                                                                                                                                                                                                                               (first cotry)
                                                                     specification, but was European Patent Office
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ID NO 4337; 10078pp; English.
  such as central nervous system injuries -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Wang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-JAN-2000;
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Zhao QA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ford JE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAH50050;
                              Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                               AAH90050/c
                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT
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     immunostimulant; cardiant; thrombolytic; coagulant; vasotropic; antidiabetic; hypotensive; dermatological; immunosuppressive; antidiabetic; hypotensive; dermatological; immunosuppressive; antidialmantor; antibacterial; antiviral; antifrheumatic; antithyroid; and antidanemic. The sequences can be used for determining the presence of or predisposition to, or preventing or treating to pathological conditions associated with an ORFX-associated disorder. Onucleic acids can be used to express ORFX proteins in gene therapy vectors. The proteins and nucleic acids may be used to treat cancers, proliferative disorders, neurodegenerative disorders, osteoarthiitis, cardit va host disease, cardiovascular disease, diabetes mellitus, hypothyroidism, cholesterol ester storade, systemic lupus erythematosus, severe combined immunodeficiency (SCID), ADDS, viral, bacterial or fungal infection, malaria, autoimmune disorders, asthma, allergies, aplastic anaemia, burns, wounds, bone and cartilage damage, nocturnal haemoglobinuria, antiinflammatory disease; to enhance
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human, nootropic, immunosuppressant; cytostatic; gene therapy; cancer; peripheral nervous system; neuropathy; central nervous system; CNS; Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic; amyotrophic lateral sclerosis; Shy-brager Syndrome; chemotactic; chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Wang D;
                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel nucleic acids and polypeptides, useful for treating disorders
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Zhang J;
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0
                                                                                                                                                                                                                                                             2.8%; Score 17; DB 21; Length 2813;
100.0%; Pred. No. 50;
ive 0; Mismatches 0; Indels 0
                                                                                                                                                                                                  coagulation; to inhibit thrombosis; and as a contraceptive.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Qian XB,
Yang Y,
                                                                                                                                                                                                                         Sequence 2813 BP; 847 A; 657 C; 637 G; 670 T; 2 other;
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Xu C, Xue AJ,
R, Drmanac RT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human polynucleotide SEQ ID NO 4337.
                                                                                                                                                                                                                                                                                                                                                                                                           AAI60348 standard; cDNA; 3092 BP.
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Wang 2, Wehrman T, Xi
2hou P, Goodrich R,
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2000US-0662191.
2000US-0693036.
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25-APR-2000; 2000US-0552317.
09-JUL-2000; 2000US-0598042.
19-JUL-2000; 2000US-0620312.
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                                                                                                                                                                                                                                                                                                                                           1919 GGAGCTTCAGAAGGAAA 1903
                                                                                                                                                                                                                                                                                                                  401 ggagcttcagaaggaaa 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                            Best Local Similarity 100.
Matches 17; Conservative
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P-PSDB; AAM41192.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               leukaemia; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             03-AUG-2000;
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19-OCT-2000;
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Zhao QA,
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The invention relates to human nucleic acids (AAI57788-AAI61369) and the encoded polypeptides (AAM38642-AAM42213) with nootropic, immunosuppressant and cytostatic activity. The polynucleotides are useful in gene therapy. A composition containing a polypeptide or polynucleotide of the invention may be used to treat diseases of the peripheral nervous system, such as peripheral nervous injuries, peripheral neuropathy and localised neuropathies and central nervous system diseases, such as Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, and Shy brager Syndrome. Other uses include the utilisation of the activities such as: Immune system suppression, Activin/inhibin activity, chemotectic/chemokincitc activity, hemostatic and thrombolytic activity, arthritis and inflammation, leukaemias and CNN S discretes.
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                                                                                                                                                                                                                                                                                                                                                                                                                                         Note: The sequence data for this patent did not form part of the printed specification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human: bone marrow; antiinflammatory; cytostatic; neuroprotective; antiviral; antibacterial; antifungal; anti-HIV; haemostatic; immunosuppressive; gene therapy; cytokine cell proliferation; cell differentiation modulator; immune disorder; infection; cancer; human immunodeficiency virus; HIV; autoimmune disorder; haemophilia; ss.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22; Length 3092;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 3092 BP; 921 A; 727 C; 698 G; 746 T; 0 other;
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Pred. No. 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
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09-JUL-2000, 2000US-0550312.
19-JUL-2000, 2000US-0520312.
03-AUG-2000, 2000US-0653450.
14-SEP-2000, 2000US-065191.
15-OCT-2000; 2000US-065933.
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2000US-0662191.
2000US-0693036.
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2000US-0552317.
2000US-0598042.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              401 ggagetteagaaggaaa 417
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Best Local Similarity 100.
Matches 17; Conservative
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23-DEC-2000; 2000WO-US34960
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                  2001-442253/47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17; Conserv
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                                       AAM39406
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09-JUL-2000;
19-JUL-2000;
03-AUG-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                     Claim 1;
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                                         P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 35
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                                                                                                                                                                     polypeptide encoded by it are useful in the treatment of various polypeptide encoded by it are useful in the treatment of various immune deficiencies and disorders. The deficiencies and disorders may be genetic, may be caused by a viral (e.g. HIV), bacterial or fungal infection, or may result from an autoimmune disorder, a coagulation disorder (e.g. haemophilia), inhibition of tumour cell proliferation, system disorder such as Alzheimer's disease. Detection of the presence or increased expression of the polynucleotide or the protein it encodes is useful for the diagnosis and/or prognosis of one or more types of cancer. The polynucleotide and polypeptide can be used as nutritional sources or supplements and in the screening of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer; peripheral nervous system; neuropathy; central nervous system; CNS; Alzheimer's; parkinson's disease; Huntington's disease; haemostatic; amyotrophic lateral sclerosis; Shy-brager Syndrome; chemotactic; chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wang D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                         Novel bone-marrow-expressed polynucleotides and polypeptides, useful for treating e.g. cancer and immune deficiency disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ren F, W
Zhang J;
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                                                                                                                                                       present sequence is one of 251 novel human polynucleotides
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Yang Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 3092 BP; 921 A; 727 C; 698 G; 746 T; 0 other;
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Ku C, Xue AJ,
Drmanac RT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 17;
Pred. No.
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Xu C, )
                                                                                                                                                                                                                                                                                                                                                                                                                                          chemical compounds as potential drugs.
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100.0%; Pre
                                                                                                             Claim 1; Page 405; 648pp; English.
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Wehrman T, Xu
Goodrich R,
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2000US-0552317.
2000US-0598042.
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20000S-0727344
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2000US-0662191
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       401 ggagcttcagaaggaaa 417
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Matches 17; Conservative
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Wang Z, V
Zhou P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (HYSE-) HYSEQ INC.
  P-PSDB; AAM00931
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09-JUL-2000;
19-JUL-2000;
03-AUG-2000;
14-SEP-2000;
19-OCT-2000;
29-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               eukaemia; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-JUL-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Wang J,
Zhao QA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AA158562;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tang YT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULI 36
AA158562/0
ID AA158
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                                                                                                                                                               The invention relates to human nucleic acids (AAI57788-AAI61369) and the encoded polypeptides (AAM38642-AAM42213) with nootropic, the encoded polypeptides (AAM38642-AAM42213) with nootropic, immuosuppressant and cytoStatic activity. The polynucleotides are useful in gene therapy. A composition containing a polypeptide or polynucleotide of the invention may be used to treat diseases of the peripheral nervous system, such as peripheral nervous injuries, peripheral nervous injuries, peripheral nervous system diseases, such as Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic laceral sciencisis, and Shy Drager Syndrome. Other uses include the utilisation of the activities such as: Immune system suppression, Activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic and thrombolytic activity, cancer diagnosis and therapy, drug screening, assays for receptor activity, arthritis and inflammation, leukaemias and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Note: The sequence data for this patent did not form part of the printed specification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human: bone marrow; antiinflammatory; cytostatic; neuroprotective; antiviral; antibacterial; antifungal; anti-HIV; haemostatic; inmunosuppressive; gene therapy; cytokine cell proliferation; cell differentiation modulator; immune disorder; infection; cancer; human immunodeficiency virus; HIV; autoimmune disorder; haemophilla;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
Novel nicleic acids and polypeptides, useful for treating disorders such as central nervous system injuries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2.8%; Score 17; DB 22; Length 3382;
100.0%; Pred. No. 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 3382 BP; 573 A; 797 C; 763 G; 849 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .;
o
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Mismatches
                                                                                                              SEQ ID NO 765; 10078pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human bone marrow cDNA, SEQ ID NO: 68.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .937/c
AAH69937 standard; cDNA; 3405 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2.50,
100.0%; Pic
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2000US-055317.
2000US-0598042.
2000US-06598042.
2000US-0653450.
2000US-0662191.
2000US-066393.
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RESULT 41
AAH57450/c
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The present sequence is one of 251 novel human polynucleotides capressed in the bone marrow. The polynucleotide and the polypeptide encoded by it are useful in the treatment of various polypeptide encoded by it are useful in the treatment of various compared to the properties and disorders. The deficiencies and disorders may be genetic, may be caused by a viral (e.g. HIV), bacterial or fungal infection, or may result from an autoimmune disorder, a coagulation disorder (e.g. haemophilia), inhibition of tumour cell proliferation, suppression of an inflammatory response or treatment of a nervous system disorder such as Alzheimer's disease, Detection of the presence or increased expression of the polynucleotide or the protein it encodes is useful for the diagnosis and/or prognosis of one or more types of cancer. The polynucleotide and polypeptide can be compounds as potential drugs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; open reading frame; ORFX; detection; cytostatic; hepatotropic; vulnerary; antipsoriatic; antiparkinsonian; nootropic; neuroprotective; unanticonvulsant; osteopathic; antiarthritic; immunosupperssant; cardiant; immunostimulant; thrombolytic; coagulant; vasotropic; antidiabetic; hypotensive; dermatological; immunosuppressive; antidiabetic; antianaemic; gene therapy; cancer; proliferative disorder; hypotension; neurodespenerative disorder; cancer; proliferative disorder; hypotension; neurodespenerative disorder; osteoarthritis; graft vs host disease; cadiovascular disease; diabetes mellitus; hypothyroidism; scilo; severe combined immunodeficiency; malaria; autoimmune disorder; asthma; allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     bone damage; cartilage damage; antiinflammatory disease; coagulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                            Novel bone-marrow-expressed polynucleotides and polypeptides, useful for treating e.g. cancer and immune deficiency disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
 Liu C, Asundi V, Chen R, Ma
u C, Xue AJ, Yang Y, Zhang J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 17; DB 22; Length 3405;
Pred. No. 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human ORFX ORF1915 polynucleotide sequence SEQ ID NO:3829.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 3405 BP; 977 A; 803 C; 770 G; 855 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. 90;
Mismatches
                                                                                                                                                               Claim 1; Page 252-253; 648pp; English.
                     Xu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAC76360 standard; cDNA; 5713 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        thrombosis; contraceptive; ss
                     Wang J, Werhman T, A
        Boyle BJ, Tang YT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31-MAR-2000; 2000WO-US08621.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2.88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2469 GGAGCTTCAGAAGGAAA 2453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           401 ggagcttcagaaggaaa 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      08-FEB-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity 100.
Matches 17; Conservative
                                                                    WPI; 2001-488707/53.
                                                                                     P-PSDB; AAM00818
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAC76360;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                        Zhao QA,
          Ford JE,
                         Ren F,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
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Human; tissue specific; diagnosis; brain; heart; skeletal muscle; lung; liver; uterus; ovary; stomach; intestine; kidney; pancreas; ss: metabolic disease; developmental disease; cytostatic; immunomodulatory; neuroprotective; gene therapy; cancer; immunopathology; neuropathology;
                                                                                                                                                                                                                                                                                                               AAC74446 to AAC77606 encode the proteins given in AAB40237 to AAB43397,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                 Novel nucleic acids and peptides derived from open reading frame X, useful for treating e.g. cancers, proliferative disorders,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2.8%; Score 17; DB 21; Length 5713;
100.0%; Pred. No. 89;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 5713 BP; 1237 A; 1565 C; 1581 G; 1329 T; 1 other;
                                                                                                                                                                                                                       useful for treating e.g. cancers, proliferative disorders, neurodegenerative disorders and cardiovascular disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human liver cell specific cDNA sequence SEQ ID NO:330.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                                 Claim 5; Page 2982-2985; 5507pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAH57450 standard; cDNA; 5813 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.08;
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02-APR-1959; 99US-0127636.
05-APR-1959; 99US-0127728.
30-MAR-2000; 2000US-0540763.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3941 CCAGAGATGIGICCCGG 3925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       298 ccagagatgtgtcccgg 314
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Best Local Similarity 100.
Matches 17; Conservative
                                                                                                               Leach M;
                                                                           (CURA-) CURAGEN CORP.
                                                                                                                                                     WPI; 2000-602362/57.
                                                                                                                                                                     P-PSL/B; AAB42151
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                                                                                                                 Shimkets RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-MAY-2001.
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/*tag- g
/note= "n at position 1750 represents an intronic
sequence of 5 kb*
                                                                                                                                                                                                                                                                                                                                                            sequence of 3 kb" represents an intronic sequence of 3 kb"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           yuuce+ "n at position 4185 represents an intronic
sequence of 4 kb"
                                                                                                                                                                                                                                                 /note= "n at position 2512 represents an intronic sequence of 2 kb"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /*tag= v
/note- "n at position 4857 represents an intronic
sequence of 2 kb"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /*tag* y //tag* y //tag* n at position 5369 represents an intronic sequence of 2 kb* 5476..6441
sequence of 9 kb
                                      /number= 2
1513..2108
                                                                            /number= 2
1750
                                                                                                                                                                                                                                                                                                     /number- 4
2829 .3266
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/number= 5
3428..3790
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3609
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/number= 6
3924..4439
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/number= 6
4185
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2374..2592
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/number= 7
4857
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5263..5475
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5369
            1313..1512
                                                                                                                                                                                                             'number= 3
                                                                                                                                                                                                                                                                             2593..2828
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3003
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                                                                  /*tag=
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                                                                                        misc_difference
                                                                                                                                                                                                                                                                                                                                                         misc_difference
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  AAH57161 to AAH57576 represent cell and tissue specific polynucleotide sequences (I). (I) can have cytostatic, immunomodulatory and neuroprotective activities, and can be used in gene therapy. (I) and neuroprotective activities, and can be used in gene therapy. (I) and assays to select DNA molecules, RNA molecules, peptide nucleic acids, mimetics, peptides, proteins, agonists, antagonists, antibodies or their fragments, immunoglobulins, inhibitors, drug compounds and pharmaceutical agents. Expression of (I) in a sample indicates the differentiation of embryonic stem cells into a tissue selected from tissues. (I) and (II) are used to produce an expression profile that defines a metabolic or developmental process, treatment, condition, consistence or disorder. The gene profile can be used for diagnosis, or monitoring of treatments and for investigating a predisposition to a disorder where the gene is associated with a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                 New cell and tissue specific polynucleotides useful for diagnosis, prognosis or monitoring of treatments for disorders where the gene is associated with a cancer, immunopathology or neuropathology -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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89;
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                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 5813 BP; 1290 A; 1665 C; 1665 G; 1193 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human hepatocyte nuclear factor 1 beta gene (TCF2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. 89,
                                                                                                                                                                                                                                                                                                                                                                                             cancer, immunopathology or neuropathology.
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/note= "contains introns"
356..874
                                                                                                                                                                                                                                                                                                                                                                                                                                                           2.8%; Score 17; 100.0%; Pred. No.
                                                                 Seilhamer JJ, Watson GA;
                                                                                                                                                                      Claim 1; Page 248-249; 327pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
531..5556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAV52730 standard; DNA; 6441 BP
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            99US-0163508
                                    (INCY-) INCYTE GENOMICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5426 GAAGAGGCCCGCAGGAA 5410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               237 gaagaggcccgcaggaa 253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
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1100
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 2.8
Best Local Similarity 100.
Matches 17; Conservative
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                                                                                        WPI; 2001-291057/30.
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                                                                 Sornasse T,
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Forosamin, trimethylrhamnose; polyketide synthase; biosynthesis; spinosyn; polyketide aglycone; transgenic plant; insect resistance;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     spinosyn; polyketide aglycone;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAF88315 standard; DNA; 45624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  macrolide; insecticidal; ds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
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           s1-0CI-1996;
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                                                        Barash SC,
Kunsch CA,
                                                                                                                                                  pneumoniae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAF88315;
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                                                                                                                                                                                                                                                                                                  This is a partial nucleotide sequence of the gene (TCF2) encoding human hepatocyte nuclear factor 1 beta (HNF-1 beta, see AAW1581), a permecodomain-containing transcription factor. Mutations in this gene are indicative of a propensity to diabetes mellitus. The invention concerns the identification of genes responsible for diaperstand therapeutics. It demonstrates that the MODY3 locus is the HNF-1 alpha gene (see AAV5262), the MODY4 locus is the HNF-1 beta gene (see also AAV5230) and the MODY4 locus is the HNF-1 beta gene (see AAV52687). Analysis of mutations in these HNF genes can be diagnostic for diabetes. The invention also contemplates methods of screening for modulators of HNF function utilising HNF nucleic acids or polypeptides, the modulators being useful for treating diabetes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                 Isolated nucleic acid encoding hepatocyte nuclear factor 1-alpha and 1-beta - useful for detecting susceptibility for non-insulin dependent diabetes, especially maturity-onset diabetes of the young
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Streptococcus pneumoniae; S. pneumoniae; genome; diagnosis; assay; computer readable medium; vaccine; pharmaceutical composition; ds.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 19; Length 6441;
89;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 6441 BP; 1572 A; 1827 C; 1530 G; 1504 T; 8 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Indels
                                                                                                                                                            , Furuța H, Horikawa Y, Kaisaki PJ, Menzel S;
Yamagata K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Streptococcus pneumoniae genome fragment SEQ ID NO:74.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                            or polypeptides, the modulators being us
by modulating HNF function in an animal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 17;
Pred. No.
                                                                                                                                                                                                                                                                              Claim 89; Fig 27A-I; 363pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAV52207 standard; DNA; 16535 BP
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                                                                                                                                                                                                WPI; 1998-271667/24.
P-PSDB; AAW71581 and AAW71586.
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100.0%;
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10-SEP-1996;
02-OCT-1996;
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The present invention Jescribes a computer readable medium which has the nucleotide sequences SEQ ID NO:1 to 391 (AAV52134 to AAV52524) recorded on it. Or a representative fragment or a sequence at least 958 identical to SEQ ID No:1 to 391. The nucleotide sequences depicted in SEQ ID NO:1 to 391 (AAV52134 to AAV52524) are genomic fragments from SEQ ID NO:1 to 391 (AAV52134 to AAV52524) are genomic fragments from claded nucleic acid molecule encoding a homologue of any of the fragments of the S.pheumoniae genome (SEQ ID NO:1 to 391) where the involeic acid molecule is produced by a process comptrising: (a) screening a genomic DNA library using as a process comptrising: (a) screening a genomic DNA library using as a process comptrising: (a) screening a genomic DNA library using as a process comptrising: (b) isolating coil the nucleic acid molecules that hybridise to the target sequence and isolating the nucleic acid molecules from the members; or (b) isolating molecules whose nucleacide from an organism, amplifying nucleic acid molecules from the members of the computer or the amplification and isolating the amplified sequences. The computer fraget more processed by the content of the sequence is homologues to applier or the amplification and isolating the amplified sequences. The computer fraget readable medium can be used in a computer based system for identifying
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               fragments of the S. pneumoniae genome of commercial importance, or expression modulating fragments of the S. pneumoniae genome. Products from the present invention can be used in diagnosis kits and assays, and pharmaceutical compositions and vaccines for S. pneumoniae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                  Computer-readable medium with recorded Streptococcus pneumoniae polynucleotide sequences - useful in diagnostic kits and assays, and pharmaceutical compositions and vaccines for Streptococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
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                                                                                             (HUMA-) HUMAN GENOME SCI INC
960S---029960.
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Matches 17; Conservative
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99DE-1057268.

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This invention describes a novel method nucleic acid (1) and its encoded polypeptide (II) containing at least one region that encodes an enzymatic activity involved in biosynthesis of spinosyns. (1) are used (i) to dentify, inactivate or modulate genes involved in the biosynthesis of (II); (ii) to generate a library of polyketide synthases; (iii) for adding forosamine or trimethylthamnose to a spinosyn or polyketide adding forosamine or trimethylthamnose to a spinosy or polyketide enzymes, which are used for production of (II), their precursors or derivatives, including production of transgenic plants that express (II) and thus have increased resistance to insects. (I) are also useful as markers for sequencing of the Saccharopolyspora spinosa genome. (II) are markers for sequencing of the Saccharopolyspora spinosa genome. (II) are markers for sequencing of the Sacharopolyspora spinosa genome. (II) are also be used to raise specific antibodies, useful for identifying expression clones in a gene bank. Cells transformed with (I) may produce (II). This sequence represents a genomic DNA fragment of the S. spinosa genome which contains the coding regions for proteins involved in concamine and trimethylrhamnose blosynthesis.
                                                                                                                                                     New nucleic acid encoding enzymes for spinosyn biosynthesis, useful for recombinant production of insecticidal spinosyns and their derivatives
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                                                                                         Salas JA;
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                                                                                       Velten R,
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                                                                                                                                                                                                                          Claim 7; Page 58-74; 354pp; German.
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                                                                                     Froede R,
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                                                                                     Moehrle V,
                                                                                                                     WPI; 2001-267102/28
                                                 (FARB ) BAYER AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (FARB ) BAYER AG.
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This invention describes a novel method nucleic acid (I) and its encoded polypeptide (II) containing at least one region that encodes an enzymatic activity involved in biosynthesis of spinosyns. (I) are used (i) to identify, inactivate or modulate genes involved in the biosynthesis of cidentify, inactivate or modulate genes involved in the biosynthesis of (II): (II) to generate a library of polyketide synthases; (II) for adding forosamine or trimethylithamnose to a spinosyn or polyketide egylycone; and (iv) for recombinant production of the corresponding caylycone; and (iv) for recombinant production of the corresponding carymes, which are used for production of (II), their precursors or derivatives, including production of (II), their precursors or and thus have increased resistance to insects. (I) are also useful as an arkers for sequencing of the Saccharopolyspora spinosa genome. (II) are as crivity, and can carcolides with insecticidal, but not antibacterial, activity, and can calso be used to raise specific antibodies, useful for identifying corresponding expression clones in a gene bank. Cells transformed with (I) may produce (II) at significantly increased levels or produce new derivatives of encome which contains the coding regions for produce in volved in corresponding transformed by the significantly correspondence of persents a genomic DNA fragment of the S. spinosa corrections involved in correspondence of persents and polyketide synthase biosynthesis.
                                                                                                New nucleic acid encoding enzymes for spinosyn biosynthesis, useful for recombinant production of insecticidal spinosyns and their derivatives
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                            WFI; 2001-267102/28
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SUMMARIES

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                                                  This sequence encodes a human breast tumour protein immunogenic fragment of the invention. The polypeptides or nucleic acids encoding them are useful in vaccines and pharmaceutical compositions for manufacture of medicaments for inhibiting the development of breast cancer in a patient. They can also be used to treat breast cancer. Antibodies against these polypeptides can be used to detect and monitor progression of breast cancer in patients. Primers and probes derived from the polynucleotides encoding the breast proteins are useful for detection of breast cancer. Peripheral blood cells from a patient incubated in the presence of at least one polypeptide, such that T cells proliferate, are useful in manufacture of a medicament for treating breast cancer in a patient.
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New breast tumour protein genes used, in vaccines for immunotherapy
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             or for diagnosis of breast cancer
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                                Claim 3; Page 58; 70pp; English.
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Matches 480; Conservative
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The present sequence was isolated from a breast tumour cDNA library. It is provided in a specification relating to compounds for immunotherapy and diagnosts of breast cancer. Breast tumour antigens and the polynucleotides that encode them may be used in the production of a pharmaceutical composition to be used in the treatment of breast cancer. Proliferated T cells and incubated antigen presenting cells are also required. The polypeptides and polynucleotides may also be used to
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ilarity 100.0%; Pred. No. 1.9e-105;
Cc.servative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                               74; 95pp; English.
                                                                                                                                                                                                                                A novel isolated polypeptide breast cancer protein useful cancer -
                                                                        350S-0288950.
                                   10-APR-2000; 20JONO-US09688
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Best Local Similarity
Matches 480; Conserv
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conditions can be diagnosed by determining the amount of the new
polypeptides in a sample or by determining the presence of mutations in
the new polynucleotides. Specific uses are described for each of the 87
polynucleotides, based on which tissues they are most highly expressed in
(see AAX00611 for described uses).
                                                                                                                             Sequence 489 BP; 124 A; 134 C; 91 G; 140 T; 0 other;
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The invention relates to 87 novel genes and their fragments (nucleic acid sequences: AAX00611 x00724; amino acid sequences AAX00611 which are useful for preventing, treating or ameliorating medical conditions e.g. by protein or gene therapy. Also, pathological
                                                                                                                                                                  Human; secreted protein; fusion protein; gene therapy; protein therapy; diagnosis; tissue; cancer; tumour; neurodegenerative disorder; leukaemia; developmental abnormality; foetal deficiency; blood; allergy; renal; ds; immune system; asthma; lymphocytic disease; brain; hepatic; lymphona; inflammation; ischaemic shock; Alzheimer's disease; restenosis; AIDS; cognitive disorder; schizophrenia; prostate; obsectorast; thymus; osteoporosis; arthritis; testis; lung; thyroiditis; thyroid; digestion; endocrine; metabolism; regulation; malabsorption; gastritis; neoplasm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New isolated human genes and the secreted polypeptides they encode useful for diagnosis and treatment of e.g. cancers, neurological disorders, immune diseases, inflammation or blood disorders
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Ni J, Olsen HS;
                                                                                                                                 Human secreted protein gene 34 clone HMQAJ64
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                         Best Local Similarity
Matches 480; Conserv
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AAC75470 standard; CDNA; 578
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               breast cancer; vaccine; ss
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The invention relates to 87 novel genes and their fragments (nucleic acid sequences: AAX00611-X00724; amino acid sequences AAX0611-X00724; amino acid sequences AAX0611-X00724; amino acid sequences AAX0611-X00724; acid sequences AAX0611-X00724; acid sequences AAX0611-X00724; and sequences AAX06101-X00724; conditions e.g. by protein or gene therapy. Also, pathological conditions can be diagnosed by determining the presence bf mutations in the new polynucleotides. Specific uses are described for each of the 87 polynucleotides, based on which tissues they are most highly expressed in conditions and acide aces.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New isolated human genes and the secreted polypeptides they encode useful for diagnosis and treatment of e.g. cancers, neurological disorders, immune diseases, inflammation or blood disorders
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Lafleur DW, MOOLE
v Young P;
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97US-0048351.
97US-0048352.
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9705-0048069.
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97US-0048187.
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Matches 480; Conservative
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P-PSDB; AAW67840.
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30- MAY - 1997
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The present sequence was isolated from a breast tumour cDNA library. It is provided in a specification relating to compounds for immunotherapy and diagnosis of breast cancer. Breast tumour antigens and the polynucleotides that encode them may be used in the production of a pharmaceutical composition to be used in the treatment of breast cancer. Proliferated I cells and incuibated antigen presenting cells are also required. The polypeptides and polynucleotides may also be used to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A novel isolated polypeptide comprising an immunogenic portion of a breast cancer protein useful in the detection and treatment of breast cancer.
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llarity 100.0%; Pred. No. 2e-109;
Conservative 0; Mismatches 0;
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20-JUL-2000; 2000US-219862P.
27-JUL-2000; 2000US-221300P.
18-DEC-2000; 2000US-256592P.
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                                                                                                                                                                                                                                                                                    Genetic subtraction;
cancer; B511S; ss.
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The invention relates to identifying tissue-specific polynucleotides (P) that involves performing a genetic subtraction to identify pool of (P) identify first subset of ITI), performing DNA microarray analysis to identify first subset of polynucleotides (SPI) at least 2-fold over expressed in II, and performing quantitative polymerase chain reaction (PCK) analysis on SPI to identify second subset of (P). The method is useful for determining the presence or absence of a cancer cell in a patient, monitoring the progression of cancer in a patient using a patient, monitoring the progression of cancer in a patient using a usine or a tumour biopsy sample. The methods are useful for determining the presence or absence of or monitoring progression of prostate, breast colon, ovarian, lung, head and neck, lymphoma, leukemia, melanoma, liver, gastric, kidney, bladder, pancreatic or endometrial cancer. The present
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cells in patient, ccmprises DNA microarray analysis or quantitative polymerase chain reaction .
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Pred. No. 2e-109;
Mismatches 0;
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                                                                          Claim 4; Page 116; 127pp; English.
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Best Local Similarity 100.0%;
Matches 480; Conservative 0;
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                                                                                                                                                                                                                                         BS106 is a breast tissue gene with which breast cancer and related diseases are associated. The BS106 polynucleotides AAV31989-V31953 can be detected by BS106 specific polynucleotides or complements acting as useful markers for detection methods. Peroducts and methods can be used for detecting, diagnosing, staging, preventing or treating, or determining predisposition to diseases or conditions of the breast such
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
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                                                                                                                                                                            Detecting BS106 gene products - useful for developing products detecting, staging, preventing, treating or determining predisposition to e.g. breast cancer
                                                                                                                                                                                                                                                                                                                                                        Score 478.4; DB 19; Length 553; pred. No. 4.9e-109; 0; Mismatches 1; Indels 0;
                                                                                                                          Kratochvil JD;
                                                                                                                                                                                                                                                                                                                           Sequence 553 BP; 159 A; 144 C; 101 G; 148 T; 1 other;
                                                                                                                  Friedman
MR, Krat
                                                                                                                billing-Medel PA, Cohen M, Colpitts TL, USrdon J, Granados EN, Hodges SC, Klass woberts-Rapp L, Russell JC, Stroupe SD;
                                                                                                                                                                                                                       Claim 1; Page 90; 114pp; English.
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Best Local Similarity 99.8%;
Matches 479; Conservative (
                                                     97WO-US19836
                                                                         96US-0742067
                                                                                                                                                         WPI; 1998-272234/24
                                                                                              (ABBO ) ABBOTT LAB.
                                                                                                                                                                                                                                                                                                            breast cancer.
                                                     31-OCT-1997;
                                                                           1-OCT-1996;
              NO9818545-A1
                                 U7-MAY-1998
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AAX55582

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sequences AAX55578-82 represent overlapping polynuclectide sequences of BS106 clones isolated from the breast tissue. The BS106 nucleic acids correspond to a breast tissue gene and can be used as markers for breast tissue disease. The products can be used for detecting, diagnosing, staging, monitoring, prognosticating, preventing or treating, or breast cancer.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 553;
                                                                                       BS106; breast; marker; detection; diagnosis; breast cancer;
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                                                                                                                                                                                                                                                                                                                  Friedman PN;
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Best Local Similarity 99.6%; Pred. No. 4.9e-105;
Matches 475; Conservative 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                 Colpitts TL, Fr
SC, Klass MR,
Stroupe SD;
                                                        polynuclectide sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 11; Page 89; 105pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                   New isolated BS106 nucleic acids
                                                                                                                                                                                                                                                                                                                                   Cordon J, Granadose, Hodges
Roberts-rapp L, Russell JC,
                                                                                                                                                                                                                                                                                                                    Cohen M,
                                                                                                                                                                                                                      58WO-US22020
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                           (first entry)
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                                                                                                                                                                                                                                                                                     (ABBO ) ABBOIT LAB.
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                                                             consensus
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                                                                                                                                                                                                                       19-OCT-1558;
                                                                                                                           Homo sapiens
                             26-JUL-1555
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AAX55582;
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                  Secreted protein; fingerprint identification technique; cancer; chromosome mapping; human; hereditary disease; diagnosis; cancer; hyperlipidaemia; cardiovascular; neurodegenerative disorder; therapy; autoinmune disease; rheumatic disease; embryogenic disorder; myopathy; renal injury; amino aciduria; hypoglycaemia; male rat infertility;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               rheumatic diseases, embryogenic disorders, hypertension, renal injury, amino acidurias, hypoglycaemia, male rat infertility and myopathies.
Extended cDNAs useful for expressing secreted proteins and to obtain specific antibodies {\ }^{\circ}
                                                                  Secreted protein EST coding sequence 108-002-5-0-F3-FL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Duclert A, Dumas Milne Edwards J;
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                                                                                                                                                                     BP.
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98US-0081563.
98US-0096116.
98US-0099273.
                                                                                                                                                                   AAZ40783 standard; DNA; 497
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                                                                                                                                                                                                                                     (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                              hypertension; ss
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               39-FEB-1998;
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10-AUG-1998
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Length 497;

DB 20;

Score 476.4;

99.28;

Query Match

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             Gaps
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                                                    This sequence represents a breast specific gene (BSG) clone. The BSG sequences are also referred to as breast specific markers (BSM). The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  imaging
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               breast specific marker; BSG; diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                   Detecting, diagnosiny, monitoring, staging, prognosticating, imaging and treating breast cancer using protein product of breast specific genes -
                                          ggetttgaageattttgtetgtgeteetgatetteaggteaceaecatgaagttetta
                                                                                              gcagtcctggtactcttgggagtttccatctttctggtctctgcccagaatccgacaaca
                                                                                                                                                                                                            gaaaccactgctgctgcaaccactgcgaccactgctgctaccaccactgcaaccaccgct
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              Mismatches
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  Pred.
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             0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ВР
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 breast specific gene;
.88.65
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              477; Conservative
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98US - UO$8025
98US - CO88025
98US - CO88025
98US - CO880203
98US - CO880203
98US - CO880217
98US - CO89021
98US - CO890217
98US - CO890617
     imaging
                                                         and
 invention relates to methods for diagnosing, monitoring, staging, imagi and treating breast cancer (BC). The methods comprise measuring the levels of BSG products in cells, tissues or body fluids of the patient and comparing the measured levels of BSG, with BSG levels of a normal human control. An antibody against the BSG sequences can be labelled an used for imaging BC in a patient. The antibody can be conjugated to a cytotoxic agent, and used for treating BC in a patient.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 polypeptide; PRO polypeptide; LDL receptor; TIE ligand; receptor immunoadhesin; gene mapping; ss.
                                                                                                                                                                                                                                                                                                                                                                             gcagtcctggtactcttgggagtttccatcttctggtctctgcccagaatccgacaaca 120
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                                                                                                                                                      Query Match

98.7%; Score 473.8; DB 21; Length 544;
Best Local Similarity 99.0%; Pred. No. 6.8e-108;
Matches 475; Conservative 0; Mismatches 5; Indels 0;
                                                                                                              Sequence 544 BP; 142 A; 143 C; 94 G; 154 T; 11 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Membrane-bound protein PRO1160 encoding cDNA.
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98US-0087609.
98US-0087759.
98US-0087827.
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02-JUN-1998;
02-JUN-1998;
03-JUN-1998;
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polynucleotides encoding them. The PRO sequences of the invention were identified based on extracellular domain homology screening. The PRO sequences have homology with proteins including LDL receptors. THE ligands and various enzymes. The membrane-bound proteins and receptor molecules are useful as pharmaceutical and diagnostic agents. Receptor immunoadhesins, for instance, can be used as therapeutic agents to block receptor-ligand interactions. The membrane-bound proteins can also be employed for screening of potential peptide or small molecule inhibitors of the relevant receptor/ligand interaction. The PRO encoding sequences are useful as hybridization probes, in chromosome and gene mapping and in the generation of antisense RNA and DNA. PRO nucleic acid sequences.
                                                                                                                                                                                        will also be useful for the preparation of PRO polypeptides, especially by recombinant techniques.
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sath; cancer; chromosomal mapping; gene mapping; tissue typing;
                                                                                                                                                                                                                                                                                                                                                           gcattittgtctgtgctccctgatcttcaggtcaccaccatgaagttcttagcagtcctt 69
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human PR01160 (UNQ590) nucleotide sequence SEQ ID NO:393.
                                                                                                                                                                                                                                                                                                                             1; Indels
                                                                                                                                                                                                                                          Sequence 471 BP; 118 A; 131 C; 84 G; 138 T; 0 other;
                                                                                                                                                                                                                                                                                                                             0; Mismatches
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                                                                                                                                                                                                                                                                                             97.8%;
99.8%;
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Best Local Similarity 99.8
Matches 470; Conservative
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diagnostic assay; ss.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention provides membrane-bound PRO polypeptides and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Membrane-bound proteins and related nucleotide sequences
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Wood WI, Yuan J;
                                                                                                                          98US-0091646.
98US-0091673.
98US-0091978.
98US-0091978.
98US-00924772.
98US-0095381.
98US-0095381.
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98US-0097978.
98US-0097979.
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98US-0098014
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P-PSDB; AAY66753.
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12-AUG-1998;
17-AUG-1998;
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11-AUG-1998;
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18-AUG-1998;
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19-AUG-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      DL;
Godowski PJ;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRO polynucleotides used to produce polypeptides used to target bioactive molecules such as toxins, radiolabels or antibodies, to specific cells, to cause targeted cell death -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Paoni
Wood
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Ferrara N, Fong S, Gerber H, Gerritsen ME, Goddard A,
Grimaldi CJ, Gurney AL, Kljavin IJ, Napier MA, Pan J,
Roy MA, Stewart TA, Tumas D, Watanabe CK, Williams PM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
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                                                                                                                                                                            99US-0158663.
99WO-US28313.
99WO-US28301.
                                                                                      99US-0144758.
99US-0145698.
99US-0146222.
99US-0149396.
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2000WO-US04414.
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99US-0143048
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2000WO-US05841
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              2000WO-US08439
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P-PSDB; AAB65276.
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24-FEB-2000; 2
02-MAR-2000; 2
15-MAR-2000; 2
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20-DEC-1999;
05-JAN-2000;
06-JAN-2000;
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22-FEB-2000;
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07-JUL-1999;
20-JUL-1999;
26-JUL-1999;
28-JUL-1999;
17-AUG-1999;
            30-MAR-2000;
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-SEP-1999;
-SEP-1999;
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Zhang Z;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cardiac hypertrophy; cardiovascular disorder; endothelial disorder; angiogenic disorder; atherosclerosis; osteoporosis; hypertension; myocardial infarction; diabetic retinopathy; rheumatoid arthritis; croin's disease; psoriasis; endometriosis; ulcer; wound healing; can Alzheimer's disease; Huntington's disease; stroke; drug screening;
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                         getgaeaegtatecagetaetggteetgatgatgaaggeeeetgatgetgaaaeeaet
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene therapy; transgenic animal; ss
                                                                                                                                                                                                                                                                                                                                                         AAC97492 standard; cDNA; 471 BP
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99US-0123957.
99US-0134287.
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99US-0145698.
99WO-US20111.
99WO-US20594.
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99US-0141037
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99WO-US28565
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
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08-SEP-1999;
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15-SEP-1999,
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Marsters

Mark MR, M.

Kuo SS, Ma Williams PM,

Hillan KJ,

Gurney

PJ,

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The invention relates to novel human anglogenesis-associated proteins designated PRO proteins (AAB53064-B53097), and to nucleic acids encoding designated PRO proteins and so relates to vectors and host cells comprising a PRO nucleic acid, the recombinant production of a PRO protein, PRO antibodies specific for a PRO protein, fusion proteins comprising a PRO protein, agonists or antagonists of a PRO protein, and compounds which inhibit the expression of a PRO gene. The invention additionally encompasses methods of identifying modulators of PRO expression or activity; diagnosing a cardiovascular, endothelial or anglogenic disorder, or a susceptibility to such a disorder by detecting mutations in a PRO gene, or the expression level of a PRO gene within a particular tissue; treating a cardiovascular, endothelial or anglogenic disorder via the administration of a PRO protein, PRO nucleic acid, or PRO ayonist the administration of a PRO protein, PRO nucleic acid, or PRO nucleic acid, and methods of inhibiting or stimulating endothelial administration of a PRO protein, or an agonist thereof. PRO nucleic acid, protein, or an agonist or antagonist thereof administration of a PRO protein, or an agonist or antagonist thereof cardiovascular, endothelial or anglogenic disorders, such as atherosclerosis, osteoporosis, myocardial infarction, hypertension, callacetto retinopathy, rheumatodia arthritis, crohn's disease, Huntington's disease, or stroke. PRO nucleic acids are additionally useful in the cacominant production of PRO proteins, as hybridisation probes to cardiovascular, endothelial or anglogenic disorders, such as encoding PRO proteins, to analyse genetic disorders, and in the crompathy. PRO nucleic acids are additionally useful in the development and screen bibraries to isolate cDNAs with sequence identity to PRO proteins, to analyse genetic disorders, and in an analyse genetic disorders, and in an analyse genetic disorders and an acids can allocate and and acids can also persented and and acids can also persented a
                                                                                                                                                        New isolated nucleic acid for producing a PRO polypeptide, analy genetic disorders and treating cardiovascular, endothellal or angiogenic disorders, such as atherosclerosis, wounds or cancer
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AL, Hillan KJ
Watanabe CK,
                                                                                                                                                                                                                                                                               Claim 58; Fig 63; 293pp; English.
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                        Pitti RM,
                                                                                  2001-090793/10
                                                                                                          P-PSDB; AAB53095
Godowski P
Paoni NF,
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Sequence 471 BP; 118 A; 131 C; 84 G; 138 T; 0 other;

a cDNA encoding a PhU

potential

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ز
Length 471;
                   Indels
 DB 22;
97.8%; Score 469.4; DB 22 99.8%; Pred. No. 7.9e-107;
                   Mismatches
                   ;
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            Similarity
                   470;
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                                                                                                                                                                                                                                                                                                                                                                                                                         New polynucleotides encoding breast tumor specific proteins, useful prevention, treatment and diagnosis of breast cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention provides the coding sequences for a number of breast cancer related proteins. These can be used in vaccinations against, diagnosis of and treatment of cancer, particularly breast
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Granados EN, Hodges SC, Klass
pp L, Russell JC, Stroupe SD;
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Search completed: April 29, 2002, 19:50:01 Job time: 22399 sec

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andmunenta, tutningles, Catallinii; Hominiidae; Homio.

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KI (CGAP http://www.ncbi.nlm.nih.gov/ncicgap.

KI (antional Cancer Institute, Cancer Genome Anatomy Project (CGAP),

Tumor Gene Index

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-rémail.nih.gov
Tissue Procurement: Christopher Moskaluk, M.D., Ph.D., Michael R.

Email: cgapbs-rémail.nih.gov
Tissue Procurement: Christopher Moskaluk, M.D., Ph.D., Michael R.

Email: cgapbs-rémail.nih.gov
Tissue Procurement: Christopher Moskaluk, M.D., Ph.D., CDNA Library Preparation: M. Bento Soares, Ph.D.

CDNA Library Preparation: M. Bento Soares, Ph.D.

CDNA Library Arrayed by: Greg Lennon, Ph.D.

CDNA Library Arrayed by: Greg Lennon, Ph.D.

CDNA Library Arrayed by: Greg Lennon, Ph.D.

CDNA Gistriution: NIT-CGAP clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

N.W.-bio.llnl.gov/bbrp/image/image.html
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A130686 q123904 .x
A125909 qc41c02 .x
A125595 qc41c02 .x
A165857 wb85f11 .x
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Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
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Copyright (c) 1993 - 2000 Compugen Ltd.
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Seq primer: -40ml3 fwd. ET from Amersham
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Insert Length: 584 Std Error: 0.00
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 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. I (bases 1 to 535) NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap. National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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                               double-stranded cDNA was ligated to Eco RI adaptors (Pharmacia), digested with Not I and cloned into the No and Eco RI sites of the modified pl773 vector. Library went through one round of normalization. Library constructed by Bento Soares and M. Fatima Bonaldo.
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                                                                                                                                                                                   Length 400;
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Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Elias Campo, M.D., Michael R.
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                                                                                                                                                                              100.0%; Score 382; DB 9;
100.0%; Pred. No. 1.4e-67;
ive 0; Mismatches 0;
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Mammalia; Eutreria; Primates; Catarrhini; Hominidae;
11 (bases 1 to 69)
Jia, L.B., Young, M.F., Touchman, J.W., Bouffard, G.G.,
Beckgrrom-Sternberg, S.M., Green, E.D., Powell, J.I., Ya,
P.G., Hotchkiss, R.N. and Francomano, C.A.
SGAP: The Skeietal Genome Anatomy Project
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Best Local Similarity 100.0%; Pred. No. 1.3e-67;
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| /orjanism="Homo sapiens"
| /dr_aref="taxon:9606"
| /clust="IMAGE:927542"
| /clust="InfaGE:927542"
| /sex="pooled"
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mRNA made from human bone marrow stroma, cDNA made by
oligo-dT priming. Directionally cloned. Size-selected for average insert size >0.5 kb. Library supplied_iy Dr. Libi::
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                                   National Human Genome Research Institute
10/10C101, 9000 Rockville Pike, Bethesda, MD 20892-125
Tel: 301-402-4877
Exa: 301-496-7157
Email: libin@helix.nih.gov
DNA Sequencing and analyses by National Institutes of Intramural Sequencing Center (NISC).
Plate: 54 row: 9 column: 11
Seq primer: -21M13 forward primer (ABI).
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Medical Genetics Branch
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Web site: http://www.nisc.nih.gov/
Contact: nisc_mgc@nhgri.nih.gov/
Shevchenko,Y. Wetherby,K.D., Beckstrom-Sternberg,S.M.,
Benjamin,B., Blakesley,R.W., Bouffard,G.G., Brinkley,C., Brooks,S.,
Dietrich,N.E., Guan,X., Gupta,J., Ho,S.-L., Karlins,E., Legaspi,R.,
Lin,M., Madur.D.Q.L., Masiello,C., Mastrian,S.D., McCloskey,J.C.,
McDowell,J., Pearson,R., Snyder,B., Stantripop,S., Thomas,P.J.,
Tiongson,E.E., Touchman,J.W., Tsurgeon,C., Vogt,J.L., Walker,M.A.,
Zhang,L.-H. and Green,E.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Clone distribution: MGC clone distribution information can be found through the 1.M A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAL Plate: 17 Row: j Column: 17 This clone has the following problem: no 5' EST match. Location/Qualifiers
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 4676)
                                                                                                                    Direct Submission
Submitted (0.FEB-2002) National Institutes of Health, Mammalian
Submitted (0.FEB-2002) National Optice, National Cancer
Gene Collection (MCC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
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                                                                                                                                                                                                                                                                                                   Email: cgapts-rémail.nih.gov
Tissue Procurement: ATCC
cDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: National Institutes of Health Intramural
Sequencing Center (NISC),
Gaithersburg, Maryland;
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/clone_lib="NIH_MGC_19"
/lab_host="DH10B-R"
                                                                                                                                                                                                                                                             NIH-MGC Project URL: http://mgc.nci.nih.gov
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/db_xref="taxon:9606"
/clone="IMAGE:4135681"
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CDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Washington University Genome Sequencing Center
Clone distribution: NCI-CCAP clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at: .gen.
www.bio.llni.gov/bbrp/langge/image.html
Insert Length: 889 Std Error: 0.00
Seq primer: .40UP from Gibco
High quality sequence stop: 391.
Location/Qualifiers
I. .536
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/clone="Inba"NCI_CGAP_UC2"
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                                                                                                                              536 bp mRNA linear ESI 07-MAR-2000 wm92d06.X1 NCI_CGAP_Ut2 Home sapiens cDNA clone IMAGE:2443463 3/ similar to TR:076058 076058 DJ1409.2 ;contains element MER4 A1890693.1 GI:5595887
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                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. I (bases 1 to 536) NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap. NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap. National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: Robert Strausberg, Ph.D.
Email: Gagpbs-rémail.nih.gov
Tissue Procurement: Christopher Moskaluk, M.D., Ph.D., Michael
Emmert-Buck, M.D., Ph.D.
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Best Local Similarity 99.5%; Pred. No. 5.8e-67;
Matches 380; Conservative 0; Mismatches 2; Indels
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136 bp mRNA linear EST 18-MAR-1999 LC37b03.x1 Soares Lotal fetus Nb2HF8 54 HGMG sapiens CDNA clone IMAGE:2066765 37 similar to contains element LTR10 repetitive element ;, mRNA sequence.
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 436)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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Uppublished (1997)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs:r@mail.nih.gov
This clone is available royalty-free through LLNL; contact the TMAGE Consortium (info@image.llnl.gov) for further information. Insert Length: 735 Etd Error: 0.00
Seq primer: -40UP from Gibco
High quality sequence stop: 400.
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Pred. No. 1.3e-66;
0; Mismatches 3;
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Best Local Similarity 99.2%;
Matches 379; Conservative
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Email: cgapbarfemail.nih.gov

Tissue Procurement: Christopher Moskaluk, M.D., Ph.D., Michael R.

Email: cgapbarfemail.nih.gov

Tissue Procurement: Christopher Moskaluk, M.D., Ph.D., Michael R.

Emmert-Buck, M.D., Ph.D.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Arrayed by: Greg Lennon, Ph.D.

DNA Sequencing by: Washington University Genome Sequencing Center

Clone distribution: NCI-CGAP clone distribution information can be found through the I.M.A.G.E. Consortium/LINL at:

www-bio.linl.gov/bbrp/image/hmage.thml

Insert Length: 1142 Std Error: 0.00

Seq primer: -40UP from Gibco

High quality sequence stop: 1000016161618
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                                                                                                                                                                                                                                                                                                                                                                   A1921707 680 bp mRNA linear ESI 08-MAR-2000 w029bl0.xl NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2456731 3' similar to TR:076058 076058 DJ1405.2 ;contains element LTR5
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1 (bases 1 to 680)

NCI-GGAP http://www.ncbi.nlm.nih.gov/ncicgap.

National Cancer Institute, Cancer Genome Anatomy Project (CGAP), Tumor Gene Index

Unpublished (1997)
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                                                   Gaps
 241 gitaaiceigeeagieiiteieiteaageeagggigeaieeicagaaaeeiaeicaaeae 300
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                                                                                                                                      98.6%; Score 376.8; DB 9; Length 680; 99.5%; Pred. No. 1.4e-66;
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/db_xref="taxon:9606"
/clone="IMAGE:2456731"
/clone_lib="NCI_CGAP_Gas4"
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BEC046355 5T CGAP_CO17 Homo sapiens cDNA clone IMAGE:3026656 3' similar to TR:076058 076058 DJ1409.2 ;contains element MER1 repetitive element; mRNA sequence.
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Email: capabs-riamil.nih.gov
Email: capabs-riamil.nih.gov
Fissue Procurement: Chris Moskaluk, M.D., Ph.D., Michael R.
Emmert-Buck, M.D., Ph.D. cDNA Library Preparation: Life Technologies
, Inc. cDNA Library Arrayed by: Christa Prange, The I.M.A.G.E.
Consortium DNA Sequencing by: Washington University Genome
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1 (bases 1 to 567)
NCI-CSAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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/doganism="Homo sapiens"

/do_xrei="taxon:9606"

/clone="IMAGE:3026656"

/clone="lib="NGI_CGAP_CO17"

/tissue_type="juvenile granulosa tumor"

/lab_host="DH108"
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

E. 1 (Boses I to 394)

E. 1 (Boses I to 20 394)

Krizman, D., Kucaba, T., Lacy, M., Le, N., Lennon, G., Marra, M., Martin, J., Moore, B., Schellenberg, K., Steptoe, M., Tan, F., Theising, B., White, Y., Wylie, T., Waterston, R. and Wilson, R., Theising, B., Washunch ished (1997)

Contact: Wilson RK Washington University School of Medicine
4144 Forest Park Parkway, Box 8501, St. Louis, MO 63108

Tel: 314 286 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AA703778 ay82c09.rl Stratagene hNT neuron (*937233) Homo sapiens cDNA clone IMAGE:1110976 5', mRNA sequence.
ECCRI: Site_2: XhoI: Cloned unidirectionally. Primer: Oligo dT. Pooled kidney tumors. 5' adaptor sequence: 5' GAATICGGCACGAG 3' 3' adaptor sequence: 5' CICGAGTITITITITITITITITITY. 3' Average insert size: 1.0 kb.
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This clone is available royalty-free through LLNL; contact the IMAGE Consortium (infoimage.llnl.gov) for further information. Seq primer: -26ml3 revl Er from Amersham
High quality: sequence stop: 305.

Location/Qualifiers
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                                                                                                                                                  Length 383;
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I Unpublished (1997)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-rémail.nih.gov
Tissue Procurement: L. Jeffrey Medeiros, M.D., Michael R.
Email: cgapbs-rémail.nih.gov
Tissue Procurement: L. Jeffrey Medeiros, M.D., Michael R.
Emmert-Buck, M.D., Ph.D.
CDNA Library Preparation: Stratagene, Inc.
cDNA Library Preparation: Stratagene, Inc.
cDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Mashington University Genome Sequencing, Center
Clone distribution: NCI-CGAP clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
www-bio.llnl.gov/bbrp/image/image.html
Seq primmer: -40ml3 fwd. ET from Amersham
High quality sequence stop: 369.
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NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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/note="Organ: kidney; Vector: Bluescript SK-; Site_l:
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100.0%; Pred. No. 3.4e-66;
ive 0; Mismatches 0;
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                                   Query Match 98.2'
Best Local Similarity 100.
Matches 375; Conservative
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                        /clone="IMAGE:1140976"
/clone="IMAGE:1140976"
/clone="Image: Stratagene hwr neuron (#937233)*
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/lab_host="SOLR (kanamycin resistant)"
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/note="Vector: pBleuescript SK', Site_1":
/note="Vector: pBleuescript SK', Site_1":
/note="Vector: pBleuescript": File_1":
/note="Vector: pBleuescript SK', Site_1":
/note="Vector: pBleuescript": Differentiated, post mitotic hwr neurons. Average insert
/original Page Strate Str
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Contact: Robert Strausberg, Ph.D.
Email: cgapbs-remail.nih.gov
Tissue Procurement: Christopher A. Moskaluk, M.D., Ph.D., Wichael
Tissue Procurement: Christopher A. Moskaluk, M.D., Ph.D., DN.D., CDNA Library Preparation: M. Bento
Soares, Ph.D. CDNA Library Arrayed by: Christa Prange, The
I.M.A.G.E. Consortium DNA Sequencing by: Washington University
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Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
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National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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Matches 375; Conservative
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425 bp mRNA linear EST 13-FEB-1999
0023±09,x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone
1MAGE:1567048 3', mRNA sequence.
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 425)
NC1-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
NC1-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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Clone distribution: NCI-CGAP clone distribution information found through the I.M.A.G.E. Consortium/LLNL, send email to: i.foiimage.llnl.gov
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                                         High quality sequence stop: 389.
Location/Qualifiers
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                                                                                                                                                                                                                                                                                   /note="Organ: pooled; Vector: pT7T3D-Pac (Pharmacia) with a modified polylinker; Site_1: Not I; Site_2: Eco KI: Equal amounts of plasmid DNA from five normalized libraries were mixed, and Ss circles were made in vitro. Following HAP purification, this DNA was used as tracer in a subtractive hybridization reaction. The driver was PR-amplified coNAs from pools of 5,000 clones made from the same 5 libraries and clone1Ds. Soares NBASE pool 1: 145022-14735, 147720-148103, 14872-14955, 15002 . 150407, 151176-152327 Soares NBASE pool 1: 758280-760383, 772104-774407 Soares NBAPR pool 1: 758280-760383, 772104-774407 Soares NBHPA pool 1: 72372-72407, 739080-740999 Subtraction by Bento Soares and M. Patlina Bonaldo.*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCUS BF002805 384 bp mRNA linear ESI 06-0CI-2000 DEFINITION 7949b09.xl NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:3309785 3'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                   Email: cgapbs-remail.nih.gov
This clone is available royalty-free through LLNL; contact the IMAGE consortium (info@image.llnl.gov) for further information.
INAGE Consortium (info@image.llnl.gov) for further information.
Insert Length: 680 Std Error: 0.00
Seq primer: -40ml3 fwd. ET from Amersham
High quality sequence stop: 408.

Location/Qualifiers
1. 425
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                                                                                                                                                                                                                                                        /clone_lib="Soares_NSF_F8_9W_OT_PA_P_S1"
                                                                                                                                                                                            /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:1567048"
                      Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                         /lab_host="DH10B"
Unpublished (1997)
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/note-"Organ: prostate; Vector: pi7136.Pac (Pharmacia)
with a modified polylunker; Plasmid DNA from the
cormalized library NCI_CGAP_PCZ was prepared, and ss
circles were made in vitro. Following HAP purification,
this DNA was used as tracer in a subtractive hybridization
tais DNA was used as pracer in a subtractive hybridization
of 5,000 clones made from the same library (cloneIDs
g8560B 986759, 1101192-1101959, and 1217928-1226615).
Subtraction by Bento Soares and M. Fatima Bonaldo. "
51 C 56 g 104 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDNA Library Preparation: M. Bento Soares, Ph.D. CDNA Library Arrayed by: Greg Lennon, Ph.D. DNA Sequencing by: Washington University Genome Sequencing Center Clone distribution: NCI-CGAP clone distribution information can be round through the I.M.A.G.E. Consortium/LLNL, send email to: infolimage.lln.gov
                                                                                                                                                                Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 384)
NCI-GAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (GGAP),
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similar to TK:076058 076058 DJ1409.2 ;contains element MEK15 repetitive element ; mKNA sequence. BF002505 BF002505 GI:10705065
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                                                                                                                                                                                                                                                                                                                                                                              Contact: Robert Strausberg, Ph.D.
Email: Ggapbs riamail.nh.gov
Tissue Procurement: Michael J. Brownstein, M.D., Ph.D.,
Emmert-Buck, M.D., Ph.D.
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Best Local Similarity 98.2%; Pred. No. 2.6e-65;
Matches 375; Conservative 0; Mismatches 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/db_xref="taxon:5606"
/clone="IMAGE:3309785"
/clone_lib="NCI_CGAP_Pr28"
/sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Seq primer: -40UP from Gibco.
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/lab_host="DH10B"
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/dev_stage="adult, 16 yr"
/dev_stage="adult, 16 yr"
/lab_host="bullob"
/dev_stage="adult, 16 yr"
/lab_host="bullob"
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/dote="vector: pcw-sport" and pring the following adaptors:
/dote="pcw-sport" and pcw-sport" and pcw-sport library.
/dote="pcw-sport" and pcw-sport" and pcw-sport library.
/dote="pcw-sport" and pcw-sport" and pcw-sport life
/dote="pcw-sport" and pcw-sport" and pcw-sport life
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Email: cgapbs-rémail.nih.gov
Tissue Procurement: Dr. James Lupski

Tissue Procurement: Dr. James Lupski

CDNA Library Preparation: Lupski Laboratory

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Washington University Genome Sequencing Center

Colone distribution: NCI-CGAP clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:

info@image.llnl.gov
Seq primer: -40UP from Gibco

High quality sequence stop: 334.

Location/Qualifiers

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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 627)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                     BF445293 MENA linear ESI 01-DEC-10meR9103.x1 Lupski_sympathetic_trunk Homo sapiens cDNA clone IMAGE:4090588 3' similar to TR:076058 076058 D1409: contains element TAR1 repetitive element; mRNA sequence.
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83 AGCACTTTAGGCAGCCACTATCAATCAATTGAAGTTGACACTTTGCATTAAAICTAITIG
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Pred. No. 2.8e-65;
0; Mismatches 6; Indels 0;
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/db_xref="taxon:9606"
/clone="IMAGE:4090588"
/clone_lib="Lupski_sympathetic_trunk"
/sex="male"
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CDNA Library Preparation: M. Bento Soares, Ph.D. CDNA Library Arraying: Greg Lennon, Ph.D. CDNA Library Arraying: Greg Lennon, Ph.D. ENA Sequencing by: Washington University Genome Sequencing Centerious Assertation: NCI-CGAP clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

WAN-blo.1101 yov/Dbpp/Amage-/image html
Insert Length: 544 Std Error: 0.00
Seq primer: -40m13 Fwd. Error: 0.00
Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Robert Strausberg, Ph.D.
Email: cgapbs-rémail.nih.gov
Tissue Procurement: Elias Campo, M.D., Michael R. Emmert-Buck, M.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 431)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                                          241 gitaalooigocagiuitloicitcaagocagggigcalooloagaaacolacicaacac 300
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                                                                                                                                                                                                                 Length 431;
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Pred. No. 3.7e-65;
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AA535981.1 GI:2280234
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Search completed: April 29, 2002, 17:16:41 Job time: 13200 sec

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Run on:

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Am Klopierspitz 184 D-82152 Martinsried, Germany This is the 5' sequence of the clone insert clone from S. Wiemann, Molecular Genome Analysis, German Cancer Clone from S. Wiemann, Molecular Genome Analysis, German Cancer Research Center (DKF2); Email s.wiemand&Kf2- heidelberg.de; sequenced by EMBL (European Molecular Biology Laboratories, Heidelberg/Germany) within the CDNA sequencing consortium of the German Genome Project.

No sl sequence available.
Ihis clone (EKF2P761N0114) is available at the K2PD in Berlin, Please contact the R2PD: Ressourcenzentrum, Heubnerweg 6, 14059 Berlin-Charlottenburg, GERMANY; Email: clone@rzpd.de.

Location/Qualifiers

Jurce | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.547 | 1.5
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AL666548 AL666548
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BF457592 UI-M-BZI-
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AL09601 Drosophil
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BC331440 nai2ce02.
AA998336 UI-R-C0-I
BH53500 ig56a02.x
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(pases 1 to 947)
Ansorge, II, Witkner, U., Mewes, W., Weil, B. and Wiemann, S.
ESI (Ansorge, W., Wirkner, U., Mewes, H.W., Weil, B. and Wiemann, S.)
Unpublished (1999)
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NS4784 yv31a04.s1 'f'.
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A165270 wb66c10.x
A1651279 tf15h01.x
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1144.029 Million cell updates/sec
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N59253 YZ82b10.S1
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                                            Compugen Ltd
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                     GenCore version 4.5
Copyright (c) 1993 - 2000 Comp
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    nucleic search, using sw model

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Minimum DB Maximum DB

Database

Searched:

170 c

313

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Result

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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
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'I.E., Saeed,A.I., Sharov,V., Lee,N.H., Yeatman,T.J. a
Quackenbush,J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Assessment of gene expression patterns in a model or metastasis using a 19,200 element cDNA microarray unpublished (2000)
Contact: John Quackehush
The Institute for Genomic Research
9712 Medical Center Dr., Rockville, MD 20850, USA Tel: 301 838 3528
Fax: 301 838 0208
Email: johnq@tigr.org
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                         211;
                                                                                                                                                                                                                                                                                                                                                                                     757 bp mRNA linear
EST367754 MAGE resequences, MAGD Homo sapiens CDNA, 1
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                         Length
                                        Indels
                         Score 522.2; DB 9;
Pred. No. 7.4e-94;
0: Mismatches 3;
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                           90.8%;
                             Query Match
Best Local Similarity 98.8
Matches 568; Conservative
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AW550828 608 bp mKNA linear EST 01-JUN-2000 EST362896 MAGE resequences, MAGA Homo sapiens CDNA, mRNA sequence. AW550828 AW550828.1 GI:8140489
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Mammalia: Eut.eria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 t 608)
Hegde,p., Gixx., Abernathy,K., Dharap,S., Gaspard,R., Gay,C., Holt,J.E., Saeed,A.I., Sharov,V., Lee,N.H., Yeatman,T.J. and Quackenbush,J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Assessment of gene expression patterns in a model of colon tumor metastasis using a 19,200 element cDNA microarray
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                                                    MAGD.
                                                                                                                   Score 519; DB 5; L
Pred. No. 3.4e-93;
0; Mismatches 5;
                               /organism-"Homo sapiens"
/bb_rref="taxon:9606"
/clone_lib="MAGE resequences, Mote="Vector: pBluescriptsKm"
i61 c 146 g 210 t
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Location/Qualifiers
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Matches 566; Conservative C
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Eukaryota; Metazoa; Chordata; Craniala; Vertebrata; Euteleostoml; Bukaryota; Metazoa; Chordata; Craniala; Vertebrata; Euteleostoml; Mammalia; Eutreria; Primates; Catarrhin; Hominidae; Homo.

Cassa I to 549)

Act Godb Rutp.//www.ncbi.nlm.nih.gov/ncicgap.

Hational Cancer Institute, Cancer Genome Anaromy Project (CGAP), Institute Institute, Cancer Genome Anaromy Project (CGAP), Contact: Robert Strausberg, Ph.D.

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Email: cgapbs-r-mail.nih.gov

Email: cgapbs-r-mail.nih.gov

Email: cgapbs-r-mail.nih.gov

Entact.Buck, M.D., Ph.D.

CONA Library Preparation: M. Bento Soares, Ph.D.

CNNA Library Preparation: M. Bento Soares, Ph.D.

DNA Sequencing by: Washington University Genome Sequencing Center Clone distribution: NCI-CGAP clone distribution information can be found fibrary brankshington University Genome Sequencing Center Clone distribution: NCI-CGAP clone distribution information can be found distribution of Std Error: 0.00

Seq primer: -40UP from Gibco

High quality sequence stop: 446.

Location/Qualifiers

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                         /organism="Homo sapiens"
/db_xref="taxon:5606"
/db_xref="taxon:5606"
/clone_"lb="NoI_CGAP_COB"
/clone_lb="NoI_CGAP_COB"
/clone_lb="NoI_CGAP_COB"
/clone_lb="NoI_CGAP_COB"
/clone_lost="bull0B"
/note="Organ: colon; Vector: p1713D-pac (Pharmacia) with a modified polylinker; lst strand cDNA was prepared from colon adenocarcinoma, and was then primed with a Not 1 - ollyo(dI) primer. Double-stranded cDNA was ligated to Eco KI adaptors (Pharmacia), digested with Not I and cloned into the Not I and Eco RI sites of the modified p1713 vector. Library is normalized. Library was constructed by Bentc Soares and M. Patima Bonaido. "Library was constructed by 172 t
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Pred. No. 4.1e-89;
0; Mismatches 4; Indels 4
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98.68;
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Matches 545; Conservative
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/organism="Homo sapiens"
/db_xref="taxon:9606"
/clone_lib="MAGE resequences, MAGE resequences, MAGE a 115 c 123 g 186 t
                                                                                                                                                                                                                                                                          Score 504; DB 9;
Pred. No. 3.4e-90;
0; Mismatches 0;
Unpublished (2000)
Contact: John Quackenbush
The Institute for Genomic Research
9712 Medical Center Dr., Rockville, MD
Tel: 301 838 3528
Fax: 301 838 0208
Email: johnq@tigr.org
                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 99.3%;
Matches 548; Conservative
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Tel: 617-495-1812
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Unpublished (1997)

Contact: Robert Strausberg, Ph.D.

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-rémail.nih.gov

Tissue Procurement: Christopher A. Moskaluk, M.D., Ph.D., Michael

R. Emmert-Buck, M.D., Ph.D.

CDNA Library Preparation: M. Bento Soares, Ph.D., M. Fatima

Bonaldo, Ph.D.

CDNA Library Arrayed by: Greg Lennon, Ph.D.

CDNA Library Arrayed by: Greg Lennon, Ph.D.

Clone distribution: NI-CGAP clone distribution information can be found through the I.M.A.G. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Anote—"Vector: pT7T3D-Pac (Pharmacia) with a modified polylinker; Site_1: Not I; Site_2: Eco RI; Plusmid LMA from the normalized library NCI_CGAP_GC4 was prepared, and ss circles were made in vitro. Following HAP puritication, this DNA was used as tracer in a subtractive hybridization reaction. The driver was PCR-amplified cDNAs from a pool of 5,000 clones made from the same library (closeIDs 1257096-1258631, 1469064-1470983, and 1475592-1476743). Subtraction by Bento Soares and M. Fatima Bonaldo.
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                                                                                                                                                                                                                                                      AI867454 EST 17-DEC-1999 wb71e10.xl NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2311146 3',
                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Hono. I to bases 1 to 541. NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
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                                                                     Length 541;
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Pred. No. 8.5e-89;
0; Mismatches 0; Indels
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Insert Length: 1230 Std Error: 0.00
Seq primer: -40UP from Gibco
High quality sequence stop: 468.
Location/Qualifiers
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Homo sapiens

Eukaryota: Metazoa: Chordata: Craniata: Vertebrata: Euteleostomi;

Mammalia: Eut.eria: Primates: Catarrhini; Hominidae: Homo.

( bases 1 to 512)

Melton, D., Brown, J., Kenty, G., Permutt, A., Lee, C., Kaestner, K.,

Lemisika, I., Scearce, M., Brestelli, J., Gradychi, G., Clifton, S.,

Schmitt, A., Theising, B., Ritter, E., Ronko, I., Bennett, J., Cardenas,

M., Gibbons, M., McCann, R., Cole, R., Tsagareishvill, R., Williams, T.,

Jackson, Y. and Bowers, Y.

Endocrine Parizreas Consortium

Unpublished (2000)
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Dept of Molecular and Cellular Biology, 7 Divinity Ave, Cambridge,
MA 02138
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Library was constructed by Dr. Hiroshi Incue DNA sequencing by:
Library was constructed by Dr. Hiroshi Incue DNA sequencing by:
Washington University Genome Sequencing Center For information on
obtaining a clone please contact: Dr. Hiroshi Incue
(hincueðim.wustl.edu)
Seq primer: -400F from Gibco
High quality sequence stop: 447.
Lostion/Qualifiers
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                                                                                                                                                                        532 bp mkNA linear EST 18 1825b01.x1 Hka5 islet Homo Sapiens CDNA 3', mkNA sequence. BM263376.1 GI:17926416
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nbb87al2.x1 NCL_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:3274655
3', mRNA-sequence.
BF432231
EFF32231.1 GI:11444345
                                                 /note="Organ: Pancreas; Vector: pBluescript SK(-); Site_1:
Not1; Site_2: Xho1; CDNA made by oligo-dT priming.
Size-selected on agarose gel. Average insert size -1kc. 5'
Xho1 site was destroyed after directional cloning.
Amplified once. Contact information: Hiroshi Inoue, Mb,
Netabolism Div. (Alan Permutt Lab), Washington Universit;
School of Medicine, Box 8127, 660 South Euclid Ave., St.
Louis, MO 63110, E-mail: hinouedingate.wustl.edu, Tel:
314-365-1916, Fax: 314-747-2692.
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Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                  Length 532;
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Mammalia; Eutheria: Primates; Catarrhini; Hom
1 (bases 1 to 467)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
                                                                                                                                                                                    Score 488; DB 10;
Pred. No. 5.2e-87;
                                                                                                                                                                                                         0; Mismatches
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99.3%;
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REFERENCE AUTHORS

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Ph. D. Coule and I. Craptor 1 martin 1970.

Ph. D. Coule and I. Craptor 1 martin 1970.

Ph. D. Coule and I. Craptor 1970.

CDNA I. Larry Arrayed by: Greg Lennon, Ph. D. Coule and I. Craptor 1970.

CLoue i. Stribution: NCI CGAP clone distribution information can be found through the I.M. A. G. E. Consortium/LLNL, send email to: info@inage llnl.gov

Seq princit: -400P from Gibco.

Location/Qualifiers
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 Genome Anatomy Project (CGAP),
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Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                 /cryanism="Homo sapiens"
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/clone='IMAGE:1274655"
/clone='INAGE:1274655"
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/tlssue_type="qlioblastoma (pcoled)"
/lar_host="DH108"
Rational Januer Institute, Cancer Jumor Gene Index Compublished (1997) Contact: Schert Strausberg, Ph.D. Email: eqaplerimail: mail: nih.gov
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Best Local Similar:ty 99.2
Matches 467; Conservative
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66

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A1421279 455 bp mRNA linear EST 09-MAR-1999
tf19h01.xl NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:2096689 3',
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Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tissue Procurement: David N. Louis, M.D., Myrna R. Rosenfeld M.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mammalia: Eutheria: Primates; Catarrhini; Hominidae: Homo.
1 (bases i to 455)
NCI/NINDS-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
NCI/NINDS-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute / National Institute of Neurological Disorders and Stroke, Brain Tumor Genome Anatomy Project (CGAP/BTGAP), Tumor Gene Index.
Unpublished (1998)
                                                                                                                                   101 aageigigageeaggeaggeteeagieteaggeaaaggiteiigagaaicageeatiigg 460
Contact: Robert Strausberg, Ph.D. Email: cyapbs-r@mail.nih.gov
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A1421275
A1421279.1 GI:4267210
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Best Local Similarity 99.1%;
Matches 454; Conservative (
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                                                                                                                                                                                                                                                                                                                                            Contact: Robert Strausberg, Ph.D.
Email: cgapbs-remail.nih.gov
Tissue Procurement: Christopher A. Moskaluk, M.D., Ph.D., Michaei
R. Emmert-Buck, M.D., Ph.D.
CDNA Library Preparation: M. Bento Soares, Ph.D., M. Fatima
Bonaldo, Ph.D.
CDNA Library Arrayed by: Greg Lennon, Ph.D.
CDNA Asquencing Dy: Washington University Genome Sequencing Center
DNA Sequencing CAR Clone distribution: NCI-CGAP clone distribution information can be
found through the I.M.A.G.E., Consortium/LLNL at:
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NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP) Tumor Gene Index Oppublished (1997)
                                                  A1655270 454 bp mRNA linear EST 17-DEC-1 wb68c10.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone lMAGE:2310:334 5
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Best Local Similarity 99.1%; Pred. No. 1.5e-71;
Matches 454; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /tissue_type="pooled germ cell tumors"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               www.bio.llnl.gov/bbrp/image/image.html
Insert Length: 598 Std Error: 0.00
Seq primer: -40UP from Gibco
High quality sequence stop: 430.
Location/Qualifiers
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A1655270.1 GI:4739249
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                                                                                                                                                                           human.
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              RESULT 8
A1655270/c
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/organism="Homo sapiens"
/organism="Homo sapiens"
/organism="Luxon:9606"
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/clone_lib="NCI_CGAP_Brn23"
/close_lib="NCI_CGAP_Brn23"
/close_lib="NCI_CGAP_Brn23"
/close_logen: brain; Vector: p1713D Fac (Pharmacia) with a modified polylinker; Site_li Not I; Site_2: Eco Rr; 1st strand cDNA was primed with a Not I - oligo(dT) primer [5' right.ccantcroand-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-grader-gra
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4
                                                                                                                                                                                          DNA Sequencing by: Washington University Genome Sequencing Center Clone distribution: NOI-CGAP clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           101 ctatggattgcagcattcacttggctacttcatacccatgccttaaagaggggcagttt 160
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               M. Fatima
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ..
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CDNA Library Preparation: M. Bento Soares, Ph.D., Bonaldo, Ph.D. CDNA Library Arrayed by: Greg Lennon, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                  www.bio.llnf.gov/bbrp/image/image.html
Seq primer: -400P from Gibco
High quality sequence stop: 442.
Location/Qualiflers
1. 455
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Query Match
Best Local Similarity
Matches 449; Conserv
                                                                                   130
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AW014882/c
LOCUS
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VERSION
KEYWORDS
SOURCE
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                                                                                   BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS
TITLE
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/organism="Homo sapiens"
/db_xref="taxon:9606"
/db_xref="IMAGE:3406016"
/clone_lib="NCI_CGAP_Brn23"
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/tissue_lip="form: Vector: pT713D-Pac (Pharmacia) with a modified polylinker; Site_1: Not I: Site_2: Eco RI; Ist strand cDNA was primed with a Not I - oligo(dI) primer (5)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDNA Library Preparation: M. Bento Soares, Ph.D., M. Fatima Bonaldo, Ph.D. CDNA Library Arrayed by: Greg Lennon, Ph.D. CDNA Library Arrayed by: Greg Lennon, Ph.D. DNA Sequencing by: Washington University Genome Sequencing Center Clone distribution: NCI-CGAP clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL, send email to:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   mRNA linear ESI 29-MOV-2000
sapiens cDNA clone IMAGE:3406016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleoston Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 449)

NCI/NINDS-GGAP http://www.ncbi.nlm.nih.gov/nciogap.
National Cancer Institute / National Institute of Neurological Disorders and Stroke, Brain Tumor Genome Anatomy Project (GGAP/BTGAP), Tumor Gene Index Unpublished (1998)
                                                                                                                                                                                                                                                                             220
                                                                                                    280
                                                                                                                                                                                                                      atttacaaagaggccagctaatagccagaaatcatgaccctgaaagagagatgaaatttc 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Robert Strausberg, Ph.D.
Email: cgapbs-rémail.nih.gov
Tissue Procurement: David N. Louis, M.D., Myrna R. Rosenfeld
221 agggcagctggccccaatgtggggaggtccgaacattttctgaattcccattttcttgt
                                                                                                                  ctcaaaagcagaaacatgccgccagttctcaagttttcctcctaactccatttgäatgta
                                                                                                                                                                                                                                                                                                                                                                                                 BF439949
nac51b05.x1 NCI_CGAP_Brn23 Homo
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BF439949.1 GI:11452466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3', mRNA sequence.
BF439949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                human.
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LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
TITLE
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COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                               35
                                                                                                                                     335
                                                                                                                                                                                                                                                                                                                                                                                                    521
                                                                           395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
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KEYWONDS
SOURCE
                  155
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SM Homo Sapiens
EWA Expote: Metazoa: Chordata: Craniata; Vertebrata: Euteleostomi: Bukarpote: Metazoa: Chordata: Catarrhini: Hominidae: Homo.
Mammalia: Eutheria: Primates: Catarrhini: Hominidae: Homo.
Mammalia: Lo 454)

I (Bases 1 to 454)

S MCI-GAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (GGAP),
Iumor Gene Index

Unpublished (1957)

Contact: Robert Strausbery, Ph.D.
Email: cyapbs-rimmil.nih.gov

Contact: Robert Strausbery, Ph.D.
Email: cyapbs-rimmil.nih.gov
oligonucleotide that was used to prime the synthesis of first
strand chwa and therefore this may represent a bonafide poly A
tail: CDIA Library Preparation: M.B. Scares Lab Clone distribution:
MCI-GGA clone distribution information can be found through the
I.M.A.G.E. Consortium/LLNL at:
www-bio.llnl.yov/bbrp/image/image.html
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UI-H-BIG-aai-c-02-0-UI.sl NCI_CGAP_Subl Hcm.o sapiens CDNA clone
IMAGE:2709051 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tacaaaaagatttttaaagottttatgitataccaiggagccatagaaaggctaiggat 520
                                                                                                                                                                                                                                                                 101 ctatgyattgcagcatttcacttggctacttcatacccatgccttaaagagggggagtt 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          70.4%; Score 405; DB 10; Length 449; ilarity 59.1%; Pred. No. 1.4e-70; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AW014882
AW014882.1 GI:5863639
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5.5

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/dev_stage=20 week-post conception fetus*
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/dab_host="blidb" (ampicillin resistant)*
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/dote="Organ: Liver and Spleen: Pac I: Site_2: Eco RI:
/dote=strand cDNA was primed with a Pac I - oligo(dI) primer
/dote=stranded cDNA was ligated to Eco RI adaptors
/double-stranded cDNA was ligated to Eco RI adaptors
/double-stranded cDNA was ligated pi773 vector: Library
went through one round of normalization. Library
constructed by Bento Soares and M.Falima Bonaldo.*
/dev. 2 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EUKaryoffs, Metazoa, Chordata; Craniata; Vertebrata; Eutelecstomi; Mammalia: Eutleria; Primates; Catarrhini; Hominidae; Homo.

I (bases 1 to 486)

I (bases 1 to 486)

I (bases 1 to 486)

RS Hillier, L. Lennon, G., Becker, M., Bonaldo, M.F., Chiapelli, B., Chissoe, S., Dietrich, N., Dudque, T., Pavello, A., Gish, W., Hawkins, M., Hultman, M., Kucaba, T., Lacy, M., Le, M., Mardis, E., Morris, M., Parsons, J., Prange, C., Rifkin, L., Rohlfing, T., Schellenberg, K., Soares, M.B., Tan, F., Thierry-Meg, J., Trevaskis, E., Underwood, K., Wohldmann, P., Waterston, R., Wilson, R. and Marra, M. Generation and analysis of 280,000 human expressed sequence tags of 2004478

RE 9704478
                                                                                                                                                                                                                                                                                                                                         N54784 1805 Tetal liver spleen INFLS Homo saplens CDNA Clone INFLS Homo saplens CDNA Clone NAGE:2444302 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Washington University School of Medicine
4144 Forest Park Parkway, Box 8501, St. Louis, MO 63106
Fal: 314 286 1800
Fax: 314 286 1810
Email: estawatson.wustl.edu
Fhis clone is available royalty-free through LLNL; contact the
IMAGE Consortium (infolimage.llnl.gov) for further information.
INSERT Length: 1315 Std Error: 0.00
Esta primer: m15 -40 forward
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               67 aegitatigeligalyáágacettleácagaatectátggaligeágeattteáctigge 126
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Pred. No. 4.1e-69;
0; Mismatches 6; Indels 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Homo saplens"
/db_xref="GDB:3793548"
/db_xref="taxon:5606"
/db_wref="IMAGE:244302"
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                                                                                                                                                                                 533 attttaaagtgttcciyyacccaaaaaggaaaaaaaaa 570
                                                                                                                                                                                                            ATITTAAAG1G1TCCUSACCCAAAAAAAAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   High quality sequence stop: 317.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 69.1%;
ilarity 97.3%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                          N54784
N54784.1 GI:1196104
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Best Local Simi
Matches 477;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        human.
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ORIGIN
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JOURNAL
MEDLINE
COMMENI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                   157
                                                                                                                                                                                                                                              38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
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KEYWORDS
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                                                                                                                                                                                               3
                                                                                                                                                                                      /clone_lib="induct./luvul"
/clone_lib="induct./luvul"
/clone_lib="NoI_CGAP_Subl"
/lab_lost="Wetcor: pT7730-Pac (Platamacia) with a modified
/note="Vector: pT7730-Pac (Platamacia) with a modified
polylinker; Site_l: Not I; Site_2: Eco RI; The
NOI_CGAP_Bubl library is a subtracted library derived from
BI. BI constitutes a mixture of 21 normalized or
subtracted NCI_CGAP_Library is NCI_CGAP_Col,
NCI_CGAP_ELLI, NCI_CGAP_Library NCI_CGAP_Library
NCI_CGAP_Library NCI_CGAP_Ent2; NCI_CGAP_Library
NCI_CGAP_Library NCI_CGAP_Library
NCI_CGAP_Ridl; NCI_CGAP_Library NCI_CGAP_Sibrary
NCI_CGAP_Library NCI_CGAP_Library NCI_CGAP_Sibrary
NCI_CGAP_Library NCI_CGAP_Library NCI_CGAP_Sibrary
NCI_CGAP_Ridl; NCI_CGAP_Ridl; NCI_CGAP_Sibrary
NCI_CGAP_Ridl; NCI_CGAP_Ridl; NCI_CGAP_Sibrary
NCI_CGAP_Ridl; NCI_CGAP_CGC4 Pool 1 LLAM 3334-3337, 3861-3851, 14476743) NCI_CGAP_Ridl;
3776-3778 (IMAGE_CloneIDs 132796-1326631, 1465064-1470983, 147592-1476743) NCI_CGAP_Ridl;
3776-3778 (IMAGE_CloneIDs 1227966-1256631, 1465064-1470983, 147592-1476743) NCI_CGAP_Ridl;
3776-3778 (IMAGE_CloneIDs 122796-12872-pool 1 LLAM 2457-2459, 2758-2759, 3062-3068
NCI_CGAP_COID pool 1 LLAM 2644-2653, 2871-2872
NDLTACTION was performed as previously described;
NDLTACTION was performed as previously described;
NDLTACLIB=NCI_CGAP_Ridl;
TAA_LIB=NCI_CGAP_Ridl;
TAA_LIB=NCI_CGAP_Ridli;
TAA_LIB=NCI_CGAP_Ridli;
TAA_LIB=NCI_CGAP_Ridli;
TAA_LIB=NCI_C
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Pred. No. 5.6e-70;
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                                                                                                                            /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                           /clone="IMAGE:2709051"
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                      Seq primer: M13 Forward POLYA=Yes.
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Matches 449; Conservative
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 412)

S Hillier,L., Allen,M., Bowles,L., Dubuque,T., Geisel,G., Jost,S., Krizman,D., Kucaba,T., Lacy,M., Le,N., Lennon,G., Marra,M., Martin,J., Moore,B., Schellenberg,K., Steptoe,M., Tan,F., Theising,B., White,Y., Wylie,T., Waterston,R. and Wilson,R.

Mashurol Linman EST Project

Unpublished (1997)

Contact: Wilson RK

Washington University School of Medicine

4444 Forest Park Parkway, Box 8501, St. Louis, NO 631v8

Tel: 314 286 1800

Fax: 314 286 1810

Email: est@watson.wustl.edu

This clone is available royalty-free through LLM.; contact the This clone is available royalty-free through LLM.; contact the Seq primer: -40ml3 fwd. ET from Amersham

High quality sequence stop: A31.
                                                                                                                                                                                                                                                                                                                                                                                                                                    AA775552 432 bp mRNA linear ESI 05-FEB-1998 ZI25G02.s1 SOares_fetal_heart_NbHH19W Homo sapiens CDNA clone IMAGES378002 3', mRNA sequence.
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tacticata-cecatgectiaaagaggggcagtiteicaaaaagcagaaacaigeeg-eea
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AA775552.1 GI:2834886
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AUTHORS
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2493a08.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:745526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryotti Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
Hillier, L. Allen, M. Bowles, L., Dubuque, T., Geisel, G., Jost, S., Krizman, D., Kucaba, T., Lacy, M., Le, N., Lennon, G., Marra, M., Martic, M., Wylle, T., Waterston, R. and Wilson, R. Tan, F., Theising, B., Washle, T., Waterston, R. and Wilson, R.
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                                                                                                                                                                                                                           Length 432;
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                                                                                                                                                                                                                           Guery Match 66.9%; Score 384.8; DB 9; Best Local Similarity 98.6%; Pred. No. 1.4e-66; Matches 430; Conservative 0; Mismatches 2;
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AA626243
AA626243.1 GI:2538630
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31:4078334
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                                                                                                                                                                                                                                                                                                                     Anote—Voctor: pT7T3D-Pac (Pharmacia) with a modified polylinker; Site_1: Not I; Site_2: Eco RI; 1st strand cE:was prepared from mRNA obtained from Clontech Laboratories. Inc., and primed with a Not I - oligo(dI) primer [5]. TGTTACCAATGGGAGGGGCGCCCAATTITITITITIIII 3 ]. Double-stranded cDNA was ligated to Eco RI adaptors (Pharmacia), digsted with Not I and cloned into the Not I and Eco RI sites of the modified pT7T3 vector. Library went through one round of normalization to Cot5, and was constructed by Bento Soares and M. Fatima Bonaldo. **
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A1341407 380 Lp mRNA linear EST 15-FEB-1999 qx91d04.xl NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2009863 3',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ·`
Unpublished (1997)
Contact: Wilson RK
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, Mo 63108
Tel: 314 286 1800
Fax: 314 286 1810
Email: esf@watson.wustl.edu
This clone is available royalty-free through LLML; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
Seg primer: -40n13 fwd. ET from Amersham
High quality sequence stop: 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           443 tgagaatcagccatttggtacaaaaaagatttttaaagcttttatgttataccatggagc 502
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        63.7%; Score 366; DB 9; Length 410; 99.0%; Pred. No. 7.6e-63; Live 0; Mismatches 0; Indels
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Matches 410; Conservative
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                                                                                                                               Email: cgapbs-rumail.nih.gov
Iissue Procurement: Christopher A. Moskaluk, M.D., Ph.D., Michael
R. Emmert-Buck, M.D., Ph.D.
cDNA Library Preparation: M. Bento Soares, Ph.D., M. Fatima
Bonaldo, Ph.D.
CDNA Library Arrayed by: Grey Lennon, Ph.D.
DNA Sequencing by: Washington University Gencme Sequencing Center
Clone distribution: NOT-CGAP clone distribution information can b
found through the I.M.A.G.E. Consortium/LiMt at:
Homo sapiens
Homo sapiens
Homo sapiens
Eukaryota; Mctazca; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 380)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicyap.
NATIONAL Cancer Institute, Cancer Genome Anatomy Project (CGAP),
Inmor Gene Index
Unpublished (1997)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       58.4%; Score 336; DB 9; Length 360; 99.0%; Pred. No. 6.7e-57; .ive 0; Mismatches 0; Indels
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/db_xref="taxon:9606"
                                                                                                                         Pi.D
                                                                                                                       Contact: Robert Strausberg,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
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Qy Dp

Search completed: April 29, 2002, 17:17:22 Job time: 13241 sec

1 1 16

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Email: cyapus-rémail.nih.gov

Fissue Procurement: Louis M. Staudt, M.D., Ph.D., David Allman,

Ph.D., Gerald Marti, M.D.

CDNA Library Preparation: M. Bento Soares, Ph.D., M. Fatima

Bonaldo, Ph.D.

CDNA Library Arrayed vy: Greg Lennon, Ph.D.

CDNA Library Arrayed vy: Greg Lennon, Ph.D.

DNA Sequencing by: Washington University Genome Sequencing Center

Clone discribution: NCI-CGAP clone distribution information can be

found through the I.M.A.G.E. Consortium/LINL at:

www-bio.llnl.gov/bbrp/image/image.html

Insert Length: 970 Std Error: 0.00

Seq primer: -40ml3 fwd Er from Amersham

High quality sequence Stop: 424.
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odžijos. i mot_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1368927,
AR818022
AR818022.1 GT:2934540
EST.
                                                        AK017693 Mus muscu
AK017693 Mus muscu
AK013764 AK013764
AIG39336 TX013565
AIC37513 UI-R-CV2-
AI712731 UI-R-AF1-
AI350586 qqq37C08 X
BF387353 UI-R-CK1-
BE387353 UI-R-CK1-
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AA737208 nx21b06.s
A1039079 ox26h02.s
A1743582 qa31406.s
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BG372882 u1-R-CV1-
AA522951 ni33914.s
A1550364 qo39b06.x
B1338594 ic24402.x
        BF07357 221085 MA
AW56878 EST380243
AW149522 xg31d11.x
BE102481 UI-R-BT1-
AW251644 UI-R-BJ0-
BF680385 602154171
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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/db.xref="taxon:9608"
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Unpublished (1997)
Contact: Robert Strausherg, Ph.D.
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AA58675 605405.5
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AR01323 25 4153403.7
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A101539 corolog.
                                                                        April 29, 2002, 17:17:22 ; Search time 6763.7 Seconds (Without alignments) 1173.873 Million cell updates/sec
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Copyright (c) 1993 - 2000 Compugen Ltd.
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Maximum Match 100%
Listing first 45 summaries
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Emmert-Buck, M.D., Ph.D.

CDNA Library Preparation: M. Bento Scares, Ph.D.

CDNA Library Preparation: M. Bento Scares, Ph.D.

CDNA Library Array Greg Lennon, Ph.D.

DNA Sequencing by: Washington University Genome Sequencing Center

Clone distribution: NCI-CGAP clone distribution information can be
found through the I.M.A.G.E. Consortium/LINL at:

Www-bio.llnl.gov/bbrp/image/image.html

Insert Length: 646 Std Error: 0.00

Seq primer: .40ml3 ivd. ET from Amersham

High quality sequence stop: 380.
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                                                                                            ). Double-stranded cDNA was ligated to Eco RI adaptors (Pharmacia), digested with Not I and cloned into the Not I and Eco RI sites of the modified pT713 vector. Library went through one round of normalization, and was constructed by Bento Soares and M. Fatima Bonaido.
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Eukaryota: Metazoa: Chordata; Craniata: Vertebrata: Euteleostomi:
Eukaryota: Metazoa: Chordata; Catarrhini: Hominidae: Homo.
1 (bases 1 to 440)
NCI-GGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (GGAP), Tumor Gene Index
Unpublished (1997)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-rémail.nih.gov
Tissue Procurement: Christopher Moskaluk, M.D., Ph.D., Michael R.
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BE047111 472 bp mRNA linear EST 08-JUN-2000 hg64903.xl hJCGAP_HN13 Homo sapiens CDNA clone IMAGE:3124180 3', mRNA sequence.
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 Length 440;
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72.4%; Score 427; DB 9; ilarity 100.0%; Pred. No. 2e-51; Conservative 0; Mismatches 0
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sapiens cDNA clone IMAGE:2559838 3',
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                                                                                                                                                                                                                                                                                                                                                                 Email: cgapts-rémail.nh.gov

Iissue Procurement: Chris Moskaluk, M.D., Ph.D., Michael R.

Iissue Procurement: Chris Moskaluk, M.D., Ph.D., Michael R.

Iissue Procurement: Chris Moskaluk, M.D., Ph.D., Michael R.

Perchaologies, Inc. Chris Moskaluk, M.D., Ph.D., Michael R.

I.M.A.G.E. Consortium DNA Sequencing by: Washington University
Genome Sequencing Center
Clone distribution: MCI-CGAP clone distribution information can be
found through the I.M.A.G.E. Consortium/LLML at:

www-bio.lnl.gov/bbrp/image/image.html
Seq primer: -10UP from Gibco
Seq primer: -10UP from Gibco
Location/Qualifiers
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1 (Chapteria and Stroke, Brain Tumor Genome Anatomy Project (CGAP/BIGAP), Tumor Gene Index Oppublished (1998)

Contact: Robert Straubbrg, Ph.D.
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                                                                                                                                                                                Contact: Robert Strausberg, Ph.D.
Email: cgapbs-rémail.nih.gov
Tissue Procurement: Chris Moskaluk, M.D., Ph.D., Michael R.
Emmert-Buck, M.D., Ph.D.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium/LLNL
CDNA Sequencing by: Mashington University Genome Sequencing Center
Clone distribution: NCI-CGAP clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL, send email to:
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NCI/NIDR-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute / National Institute of Dental
Cancer Genome Anatomy Project (CGAP), Tumor Gene Index
Unpublished (1997)
                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eute:
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
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99.8%; Pred. No. 2.7e-50;
Live 0; Mismatches 0;
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Seq primer: -40UP from Gibco
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512 bp mRNA linear EST 01-JUN-2000 EST380245 MACE resequences, MAGJ Homo sapiens cDNA, mRNA sequence. AW968275 AW968275.1 GI:8158010 EST.
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Butaryota; Metazoa; Chordata; Craniata; Verrebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 512)
1 (bases 1 to 512)
1 Hegde, P., Qi,R., Abernathy,K., Dharap,S., Gaspard,R., Gay,C., Holli,Hegde,P., Qi,R., Abernathy,K., Lee,N.H., Yeatman,I., and Quackenbush.J.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Assessment of gene expression patterns in a model of mestastasis using a 19,200 element cDNA microarray Unpublished (2000)
Contact: John Quackenbush
The Institute for Genomic Research
9712 Medical Center Dr., Rockville, MD 20850, USA
Tel: 301 838 3528
Fax: 301 838 0208
Email: johnqitigr.org
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Pred. No. 4.5e-49;
0; Mismatches 3;
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/db_xref="taxon:9606"
/clone_lib="MAGE resequences, Moctes "Vector: pgluescriptsKm"
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Matches 423;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 554) NCI-CGAP http://www.nchi.nlm.nih.gov/ncicgap. NCI-CGAP http://www.nchi.nlm.nih.gov/ncicgap. National Cancer Institute, Cancer Genome Anatomy Project (CGAF),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 554;
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Pred. No. 1.8e-49;
0; Mismatches 2;
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84 c 76 g 180 t
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/db_xref="taxon:9606"
/clone="IMAGE:2338694"
/clone_lib="NCI_CGAP_Lu24"
/tissue_lype="carcinoid"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tumor Gene Index
Unpublished (1997)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               High quality sequence stop: 447.
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A1692670.1 GI:4970010
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Best Local Similarity 99.33
Matches 424; Conservative
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/note="Vector: pT7T3D-Pac (Pharmacia) with a modified polylinker; Site_1: Not 1; Site_2: Eco RI; 1st strand JDNA was prepared from human tonsillar cells enriched for
                                                                                                                                                                                                                                                                                                                                                                                                                                                               411 bp mRNA linear EST 13-AUG-1997
2533d04.51 NCL_CGAP_GCB1 Homo Sapiens CDNA clone IMAGE:686983 3',
AA258236
                                                                                                                                                                                                                                                                                                                                             5;
   Length 460;
                            Indels
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/db_xref="taxon:9606"
/clone="IMAGE:68693"
/clone=lib="NCI_CGAP_GCB1"
/tissue_type="germinal center B cell"
/lab_host="DH108"
; DB 9; Lu.
1.8e-48;
                              o; Mismatches
     Score 406;
Pred. No. 1
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       68.8%;
59.5%;
                   Best Local Similarity 99.5
Matches 428, Conservative
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Contact: Robert Strausberg, Ph.D.

Email: cgapbs-rémail.nih.gov

Tissue Procurement: Christopher Moskaluk, M.D., Ph.D., Michāel R.

Emmert-Buck, M.D., Ph.D.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Arrayed by: Greg Lennon, Ph.D.

DNA Sequencing by: Washington University Genome Sequencing Center

Clond Library Arrayed by: Greg Lennon and Contact Conne distribution information can be

found through the I.M.A.G.E. Consortium/LLNL at:

www-bio.llnl.gov/bbrp/image/image.html

Insert Lengih: 1322 Std Error: 0.00
                                                                                                                                                                                                                                                                                                                                   tx98bl2.x1 NCI_CGAP_Ut4 Homo sapiens cDNA clone IMAGE:2277559 3', mRNA sequence.
A1690470
A1690470.1 GI:4901772
EST.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /clone_lib="NCI_CGAP_Ut4"
/clone_lib="NCI_CGAP_Ut4"
/tissue_type="serous papillary carcinoma, high grade, 2
pooled tumors"
/lab_host="BH108"
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Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
[ (bases 1 to 460)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                         248
   TTAAAGGCTCTTTGTGACCATGTTTCCCTTTGTAGCAATAAAATGTTTTTTACGAAAACT 308
                            155 t
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/db_xref="taxon:9606"
/clone="IMAGE:2277599"
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High quality sequence stop: 414.
Location/Qualifiers
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Unpublished (1997)
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AA214632 416 bp mRNA linear ESI 13-AUG-1557 zr89h03.sl NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:682901 3',
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: cgapbs-remail.nih.gov
This clone is available royalty-free through LLNL; contact the
TMAGE Consortium (info@image.llnl.gov) for further information.
Seq primer: -41ml3 fwd. ET from Amersham
High quality sequence stop: 246.
Location/Qualifiers
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Pred. No. 1.9e-47;
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792212.X1 NCI_CGAP_SKnl Homo sapiens CDNA clone IMAGE:3653518 3', mRNA sequence.
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NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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50 g 141 t 3 others
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Mammalia, Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Pred. No. 1.3e-46;
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97.88;
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Best Local Similarity 97.8
Matches 407; Conservative
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Hillier L., Lennon, G., Becker, M., Bonaldo, M.F., Chiapelli, B., Chissoe, S., Dietrich, N., DuBuque, T., Favello, A., Gish, W., Hawkins, M., Hullman, M., Kucaba, T., Lacy, M., Le, M., Le, M., Mardis, E., Moore, E., Mozris, M., Parsons, J., Pranqe, C., Krikhn, L., Rchling, T., Schellerberg, K., Soares, M.B., Tan, F., Thierry-Meg, J., Trevaskis, E., Underwood, K., Wohldman, P., Waterston, R., Wilson, R. and Marra, M. Generation and analysis of 280,000 human expressed sequence tags ground Research (5), 607-828 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Collector missum and Washington University School of Medicine 4444 Forest Park Parkway, Box 8501, St. Louis, MG 63108 14444 Forest Park Parkway, Box 8501, St. Louis, MG 63108 Febra 14 286 1800

Email: estewatson.wustl.edu

Email: estewatson.wustl.edu

Enail: estewatson.wustl.edu

Enail: estewatson.wustl.edu

Enail: St. Louis is available royalty-free through LINL; contact the Information. Insert Length: 585 Std Error: 0.00

Seq primer: -40M13 fwd. from Amersham

High quality sequence stop: 256.
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/db_xref="GBB:3805852"
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                                                                                                                                                                                                                                                                                                                                                                                                                                /dev_stage="adult"
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                                                                                                                                             Contact: Wilson RK
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                                                                   CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LINL)
DNA Sequencing by: Washington University Genome Sequencing Center
Clone distribution: NCI-CGAP clone distribution information can be
found through the I.M.A.G.E. Consortium/LLHL, send email to:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ESI 19-MAY-1997
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Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
1 (bases 1 to 418)
                                                                                                                                                                                                                                                                              /note="Organ: skin, normal, 4 pooled samples; Vector: pcMV-SPORT6; Site_1: Not!; Site_2: Sall; Cloned unidirectionally. Primer: Oligo df. Average insert size 1.03kb. Library constructed by Life Technologies, cat # 11132-018.
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Z145c01.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone
IMAGE:504864 3', mRNA sequence.
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                                             Ph.D.,
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/db_xref="taxon:9606"
/clone="IMAGE:363518"
/clone=lib="NCI_CGAP_Skn1"
/lab_hogt="DH10B_(TI_phage-resistant)"
                                                                                                                                                                                                                                                                                                                                                                                                                          10;
              Contact: Robert Strausberg, Ph.D.
Email: cgapbs rémail.nh.gov
Tissue Procurement: Chris Moskaluk, M.D.,
Emmert-Buck, M.D., Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                        Score 391.8; DB 10;
Pred. No. 1.9e-46;
0; Mismatches 2;
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al Similarity 99.3%;
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Homo sapiens
Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 370)
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National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
Tunor Gene Index
Unpublished (1957)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-rāmail.nih.gov
This clone is available royalty-free through LLML; contact the MAGE Consortium (info@image.llnl.gov) for further information.
Insert Length: 966 Std Error: 0.00
Seq primer: -40ml3 fwd. Er from Amersham
High quality sequence stop: 357.
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OL70H04.sl Soares_total_fetus_Nb2HF8_9w Homo sapiens CDNA clone
IMAGE:1622167 3', mRNA sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
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/clone
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Washington University Genome Sequencing Center
Clone distribution: NCT-CGAP clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
www-bio.llnl.gov/bbrp/image/image.html
Insert Length: 959 Std Error: 0.00
Seq primer: -40ml3 fwd. ET from Amersham
High quality sequence stope: 372.
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0
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Contact: Robert Strausberg, Ph.D.
Ph.D., Gerald Marti, M.D.
Contact Preparation: M. Bento Soares, Ph.D., M. Fatima
Contact Preparation: M. Bento Soares, Ph.D., M. Fatima
Contact Library Arrayed by: Greg Lennon, Ph.D.
Contact Library Arrayed by: Greg Lennon, Ph.D.
Clone distribution: Not-CGAP clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
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                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 373) NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap. NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap. National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tissue Procurement: Louis M. Staudt, M.D., Ph.D., David Allman, Ph.D., Gerald Marti, M.D. cDNA Library Preparation: M. Bento Soares, Ph.D., M. Fatima Bonaldo, Ph.D.
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                  57 TCCCTGTGCCTGTGTCAAATCTTCAAGTCTTGCTGAAAATACATTIGATACAAAGII 1
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100.0%; Pred. No. 3.2e-42;
Live 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             www-bio.llnl.gov/bbrp/image/image.html
                                                                                                                                                                                                                                                                                  AA856775.1 GI:2945077
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Matches 362; Conservative
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                                                                                                                                                                                                                                 mRNA sequence.
AA856775
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EST 27-AUG-1958

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Gaps

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315

255 181

us-09-248-178-67.std.rst

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1 (bases 1 to 467)
Robertson, N.G., Khetarpal, U., Gutierrez-Espeleta, G.A., Bieber, F.R. and Morton, C.C.
Isolation of novel and known genes from a human fetal cochlear cDNA library using subtractive hybridization and differential screening Genomics 23, 42-50 (1994)
National Institutes
see
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Reproductive Biology
Brigham and Women's Hospital
TS Francis Street, Harvard Medical School, Boston, MA 02115, USA
Tel: 617 732 7980
Fax: 617 736 6996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: concrton@bics.bwh.harvard.edu

DNA sequencing and analyses were performed by National Institute
of Health Intramural Sequencing Center (NISC: see

http://www.nisc.nih.gov).

This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                                                                                                                                                                                     Catarrhini; Hominidae; Homo.
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Homo sapiens cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          95130111
Contact: Morton, C. C.
Departments of Pathology and Obstetrics, Gynecology
                                                                                                                                                                  Length 360;
                                                                                                                                                                                             Indels
                                                                                                                                                                                            0
                                                                                                                                                                    57.6%; Score 340; DB 9;
99.7%; Pred. No. 4.2e-39;
                                                                                                                                                                                               0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   467 bp
df53d03.yl Morton Fetal Cochlea i
IMAGE:2487156 5', mkNA sequence.
AM023325
EST.
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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Best Local Similarity 99.7
Marches 351; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360 bp mRNA linear EST 19-DEC-1597 2956c09.s1 Soares pineal_gland_N3HPG Homo sapiens cDNA clone AA701126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Lukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
Hobses 1 to 360)
Hillier, L. Allen, M. Bowles, L., Dubuque, T., Geisei, G., Jost. S., Krizman, D., Kucaba, T., Lacy, M., Le, N., Lennon, G., Marra, M., Martin, J., Moore, B., Schellenberg, K., Steptoe, M., Tan, F., Fheising, B., Hhite, Y., Wille, T., Waterston, R. and Wilson, R. Heising, B., Washur, K. Hison EST Project
Unpublished (1997)
Oontact: Wilson R. Asta Kohool of Medicine
Mashiqton University School of Medicine
4444 Forest, Parkway, Box 8501, St. Louis, MO 63108
                                                                   ..
,...
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This clone is available royalty-free through LLNL : contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
Seq primer: -40ml3 fwd. ET from Amersham
High quality sequence stop: 322.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /clone_lib="Soares_pineal_gland_N3HPG"
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                                                                                                                                                                                                                                                                                                                                                                 ctggattagcagtttaaatgaaacagagttcatcaatgaaatgagtatttaaaaataaaa 186
                                                                                                                                                               Gaps
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                                        Length 370;
                                                                     Indels
                              ; DB 9; Lev
. 1.6e-40;
0;
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                                                          Pred. No. 1.6e
0; Mismatches
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Pred. No. 1
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                                            59.38;
99.78;
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Fax: 314 286 1810
                                                          Best Local Similarity 99.7
Matches 361; Conservative
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EST 13-SEP-1999

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plate: LLAM6189 row: G column: 5
Seq primer: M13RP1 reverse primer (ABI).

Location/Qualifiers

1. .467
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
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BF076243 225759 NA

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BF0043014 BP2500058
AW463396 BP230019A
BA926204 UI-R-AI-e
AW332133 fj14406.x
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                                       RST31623
xq19a03.x
                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 737)
                                                                           y138c11.s1
96 RST32700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1. 737
/organism="Homo sapiens"
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/coll_line="HIN180"
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Libraries using Random Activation of Gene Expression',
                                                          H21976 y138c11.rl
H25577 y148904.sl
                                                                                                                                                                                                                                                                                                                                       BG210988 737 bp mRNA EST 21-APR-2001
RST30544 Athersys RAGE Library Homo sapiens CDNA, mRNA sequence.
BG210988 GI:13732675
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AA269939 v
BE630128 u
BG196956 BG217894 BG192934 BG196467 BG205754 BG205754 BG212152 AW472756
                                                                                   BG213096
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Nat. Biotechnol. 19 (5), 440 (2001) In press
Contact: Scott J. Cain
Athersys, Inc.
Tal: 210 Carnegie Ave, Cleveland, OH 44115, USA
Tel: 216 431 9500
Fax: 216 361 9596
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High quality sequence stop: 510.
Location/Qualifiers
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AW232133
A1939201
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BE990724
BF076243
AA003705
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BE515975
AA269939
BE630128
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BG214692
AQ505963
AQ430549
BF04319
BF043410
AW465356
BF043014
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EG204180
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BG218514 RST38137
H25624 71449904.7
AI731538 Y148904.7
AI820775 Y138C11.7
AI66854 Y138C11.X
AI668654 Y138C11.X
AI668654 Y138C11.X
AV700083 AV700083
                                                                April 30, 2002, 07:52:11; Search time 8034.67 Seconds (without alignments) 1247.819 Million cell updates/sec
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                         Compugen Ltd.
                                                                                                                                                             residues
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                 GenCore version 4.5
Copyright (c) 1993 - 2000 Comp
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AI820775
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em_gss_pln:*
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DB seq length: 200000000
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Libraries using Random Activation of Gene Expression',
Nature Biotechnology, in press. Note that even though the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostcat; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 788)
Harrington, J.J., Sherf, B., Rundlett, S., Jackson, P.D., Perry, R., Canin, S., Dahl, T., Thornton, M., Ramachandran, R., Whittington, J., Lerner, L., Krashoc, D., McElligott, K., Clark, S., Mays, R., Smith, E., Veloso, N., Hess, J., Cothren, K., Lo, K., Offenbacher, J., Danzig, J.
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Nature Biotechnology, in press. Note that even though the cell type indicated is HT1080, since a random activation method was used, these sequence tags are not necessarily expressed in HT1080 under normal circumstances.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BG201072 788 bp mRNA EST 21-APR-2001
RST20398 Athersys RAGE Library Homo sapiens CDNA, mRNA sequence.
BG201072
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/dbxref="taxon:9606"
/clone_lib="Athersys RAGE Library"
/cell_line="HT1080"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3201 Carnegie Ave, Cleveland, OH 44115, USA Tel: 216 431 9900
Fax: 216 361 9596
Email: scain@athersys.com
                                                                                                                           32.3%; Score 301; DB 11;
100.0%; Pred. No. 8.1e-83;
iive 0; Mismatches 0;
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Best Local Similarity 100.
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Action | 11b- Athersys RAGE Library

Action | 11b- Athersys RAGE Libra
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Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia: Eutieria; Primates; Catarrhin; Hominidae; Homo.
1 (Dases 1 tc. 792)
Harrington, J.J., Sherf, B., Rundlett, S., Jackson, P.D., Perry, R., early, S., Dahll, Thornton, M., Ramachandran, R., Whittington, J., Lerner, L., Kraskoc, D., McElligott, K., Clark, S., Mays, R., Smith, E., Veloso, N., Hess, J., Cothren, K., Lo, K., Offenbacher, J., Danzig, J.
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Creation of Genome-wide Protein Expression Libraries using Random Creation of Gene Expression
Nat. Biotechnol. 19 (5), 440 (2001) In press
Contact: Scott J. Cain
cell type indicated is HT1080, since a random activation methon was used, these sequence tags are not necessarily expressed in HT1080 under normal circumstances. ^{\circ}
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RST12619 Athersys RAGE Library Homo sapiens CDHA, mRNA sequence.
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3201 Carnegie Ave, Cleveland, OH 44115, US.
3201 Carnegie Ave, Cleveland, OH 44115, US.
3201 Carnegie Ave, Cleveland, OH 44115, US.
Fax: 216 361 9596
Email: scain@athersys.com
High qualities acquence stop: 553.
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Pred. No. 7.6e-83;
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/db_xref+"taxon:96.06"
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1 (bases 1 to 777)

1 (bases 1 to 777)

2 Abarington, J.J., Sherf, B., Rundlett, S., Jackson, P.D., Perry, R., Cain, S., Dahl, T., Thornton, M., Ramachandran, R., Whittington, J., Lerner, L., Krashoc, D., McElligott, K., Clark, S., Mays, R., Smith, E., Veloso, N., Hess, J., Cothren, K., Lo, K., Offenbacher, J., Danzig, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and Ducar, M. Creation of Genome-wide Protein Expression Libraries using Random Creation of Genome-wide Protein Expression Activation of Gene Expression
Ant. Biotechnol. 19 (5), 440 (2001) In press
Contact: Scott J. Cain
Athersys, Inc.
Athersys, Inc.
230 Carnegie Ave, Cleveland, OH 44115, USA
Tel: 216 431 9900
Fax: 216 361 9596
Email: scain@athersys.com
                                                                                                 ..
        method was used, these sequence tags are not necessarily expressed in HT1080 under normal circumstances.  
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RST39149 Athersys RAGE Library Homo sapiens CDNA, mRNA sequence
BG219391 GI:13745412
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                                                                              31.5%; Score 294; DB 11;
99.6%; Pred. No. 1e-80;
Live 0; Mismatches 1;
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Location/Qualifiers
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Matches 464; Conservative
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Nat. Biotechnol. 19 (5), 440 (2001) In press
Contact: Scott J. Cain
/clone_lib._Athersys RAGE Library.
/cell_line="H1080"
/note="Sec 'Creation of Genome-wide Protein Expression
/note="Sec 'Creation of Genome-wide Protein Expression',
Libraries using Random Activation of Gene Expression',
Nature Biotecinnology, in press. Note that even though the
cell type indicated is H1080, since a random activation
method was used, these sequence tags are not necessarily
expressed in H1080 under normal circumstances.

a 177 c 142 g 226 t 2 others
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Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Eukaryota, Metazoa; Chordata; Catarrhini; Hominidae; Homo.

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

I (bases 1 to 787)

Harrington J.J., Sherf, B., Rundlett, S., Jackson, P.D., Perry, R.,

Earlington J.J., Thornton, M., Ramachandran, R., Whittington, J.,

Lerner, L., Krashoc, D., McElligott, K., Clark, S., Mays, R., Smith, E.,

Veloso, N., Hess, J., Cothren, K., Lo, K., Offenbacher, J., Danzig, J.
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/db_xref="taxon:9606"
/clone_lib="Achiersys RAGE Library"
/coll_line="HI1080"
/note="See" Creation of Genome-wide Protein Expression
Libraries using Random Activation of Gene Expression',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BG218514 787 bp mkNA EST 21-APR-2001
RST38137 Athersys RAGE Library Homo sapiens cDNA, mkNA sequence.
BG218514 GI:13741423
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210 Carnegie Ave, Cleveland, OH 44115, 1201 Carnegie Ave, Cleveland, OH 44115, 1211; 216 431 9900
Fax: 216 361 9596
Email: scanidathersys.com
High quality sequence stop: 504.
Locarion/Qualifiers
                                                                                                                                                                                                                                                                                                        tch 28.8t; score 269; DB 11; al Similarity 100.0%; Pred. No. 4.6e-73; 269; Conservative 0; Mismatches 0;
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Mammalia; Eutneria; Firence, --

Hoases 1 to 432)

Hiller,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M., Holman, M., Midban,T., Le,M., Lenoho,G., Marra,M., Parsons,J., M., Hilliamson,A., Wohldmann,P. and Wilson,R. Marterston,R., Williamson,A., Wohldmann,P. and Wilson,R. Materston,R., Williamson,A., Wohldmann,P. and Wilson,R. Materston Rashington University School of Medicine

Ad44 Forest Park Parkway, Box 8501, St. Louis, MO 63108

Fax: 314 286 1800

Fax: 314 286 1800

Email: estewatson.wustl.edu

Insert Size: 874

High quality sequence stops: 353

Source: IMAGE Consortium, Linl.

This cione is available royalty-free through LLML; Contact the IMAGE Consortium (info@image.lln1.gov) for further information.
                                                                                                                                                                   ÷,
Nature Biotechnology, in press. Note that even though the cell type indicated is HT1080, since a random activation method was used, these sequence tags are not necessarily expressed in HT1080 under normal circumstances.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     H25624 432 bp mRNA EST 10-JUL-1955 y148904.rl Soares breast 3NbHBst Homo sapiens cDNA clone IMAGE:161526 5' similar to gb:J02871 CYTOCHROME P450 IVB1 (HUNAN F.contains Alu repetitive element;, mRNA sequence. H25624.1 GI:894747
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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                                                                                                                                  tch 26.8%; Score 250; DB 11; Length 787: al Similarity 99.7%; Pred. No. 2.9e-67; and 300; Conservative 0; Mismatches 1; Indels
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Seq primer: M13RP1
High quality sequence stop: 353.
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Homo sapiens

Eukaryota: Metazoa: Chordata; Craniata; Vertebrata; Euteleostomi:
Eukaryota: Metazoa: Chordata; Catarrhini; Hcminidae; Homo.

Mammalia: Eutrieria;
I (bases 1 to 535)
I (b
                                                                                                                                                                                                                               /dev_stage="adult"
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/dev_stage="bH10B (ampicillin resistant)
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IMAGE:161526 5' similar to SW:CP4B_RABII P15128 CYTOCHROME P450 4B1
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/clone-"lMAGE:161526"
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ilarity 100.0%; Pred. No. 3.5e-66;
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/organism="Homo sapiens"
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/db_xref="taxon:9606"
/db_xref="taxon:9606"
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y138c11.y5 Soares breast 3NbHBst Homo sapiens CDNA clone
IMAGE:160532 5' similar to SW:CP4B_RABIT P15128 CYIOCHROME P450 451
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
1 (bases 1 to 548)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
Tumor Gene Index
Unpublished (1997)
Other_ESTs: y138c11.x5
been verified (found to hit its original self in the
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100.0%; Pred. No. 3.3e-66;
live 0; Mismatches 0;
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Seq primer: -40RP from Gibco
High quality sequence stop: 440.
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/dev_stage="adult"
//dev_stage="adult"
//dev_s
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Mammalia; Euthoria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 767)
                                                                                                                                                                                                                                                                                                                             This read has been verified (found to hit its original self in the
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-rämail.nih.gov
This clone is available royalty free through LLNL; contact the
This clone is available royalty free through LLNL; contact the
THAGE Consortium (infoatmage.lini.gov) for further information.
This read is a RESEQUENCE of a previously sequenced human clone
Original clone citation: see original entry for original citation
information
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RST12058 Athersys RAGE Library Homo sapiens CDNA, mKNA sequence.
BG192933
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/sex="Female"
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Insert Length: 870 Std Error: 0.00
Seq primer: -10KP from Gibco
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/db_xref="GDB:574579"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   High quality sequence stop: 469.
Location/Qualifiers
1. 548
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AIG68602 629 bp mRNA EST 24-OCT-2060
y148904.x5 Soares breast 3NbHBst Homo sapiens cDNA clone
IMAGE:161526 3' similar to SW:CP4B_RABIT P15128 CYTOCHROME P450 4B1
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butieria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 629)
                                                                                                                                   This read has been verified (found to hit its original self in the
       Contact: Robert Strausberg, Ph.D.
Email: cgapbs-rémail.nih.gov
Ihis clone is available royalty-free through LLNL; contact the
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info-aimage.llnl.gov) for further information.
INIS read is a RESEQUENCE of a previously sequenced human clone
Original clone citation: see original entry for original citation
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Possible reversed clone: similarity on wrong strand
Insert Length: 870 Std Error: 0.00
Seq primer: -400P from Gibco
High quality sequence stop: 458.
Location/Qualifiers
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/db.xref="GDB:574579"
/db.xref="raxon:9606"
/clone="IMAGE:160532"
/clone="ImAGE:160532"
/sex="Female"
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Pred. No. 6.1e-48;
0; Mismatches 0;
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100.0%; Pred. No. c..
... 0; Mismatches
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A1668602.1 GI:4827910
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Best Local Similarity 100.
Matches 187; Conservative
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178 AAGCIGA 172
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y138c11.x5 Soares breast 3NbHBst Homo sapiens CDNA clone
IMAGE:160532 3' similar to SW:CP4B_RABIT P15128 CYTOCHROME P450 4B1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                       Libraries using Random Activation of Gene Expression,
Nature Biotechnology, in press. Note that even though the
cell type indicated is HT1080, since a random activation
method was used, these sequence tags are not necessarily
expressed in HT1080 under normal circumstances.
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Bukaryota; Metazoa; Chordates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 629)
NOTI-CEAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
Tumor Gene Index
Harrington, J.J., Sherf, B., Rundlett, S., Jackson, P.D., Perry, R., Cain, S., Dahl, T., Thornton, M., Kamachandran, R., Whittington, J., Lerner, L., Krashoc, D., McBligott, K., Clark, S., Mays, R., Smith, E., Veloso, N., Hess, J., Cothren, K., Lo, K., Offenbacher, J., Danzig, J. and Ducar, M.
                                                                                       Creation of Genome-wide Protein Expression Libraries using Random Activation of Gene Expression Nat. Biotechnol. 19 (5), 440 (2001) In press Contact: Scott J. Cain
                                                                                                                                                                                                                                                                                                                  /organism="Homo sapiens"
/db_xref="taxon:9606"
/db_xref="taxon:9406"
/coll_line="HT1080"
/note="See (Creation of Genome-wide Protein Expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         247 ggctcttcaccacaacccctatttctgggaagaccctcaggtctttaaccccttgagatt 306
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                                                                                                                                                                                        3201 Cárnegie Ave, Cleveland, OH 44115, USA Tel: 216 431 9900
Fax: 216 361 9596
Email: scainéathersys.com
                                                                                                                                                                                                                                                               High quality sequence stop: 388.
Location/Qualifiers
1. 767
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AI668594.1 GI:4827902
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Wu J., Gian, B., Huang, C., Huang, C., Kany, B., Gao, X., Xu, Z., Xiao, H.,
Xu, X., Li, N., Peny, Y., Liu, F., Qu, J., Scng, H., Cheng, Z., Zeng, L.,
Xu, S., Gu, W., Tu, Y., Jia, J., Fu, G., Ren, S., Zhony, M., Lu, G., Yang
it, Gu, Y., Chen, Z. and Han, Z.
Gomo sapiens conta Grand Han, Z.
Unpublished (2000)
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Creation of Genome-wide Protein Expression Libraries using Random Activation of Genome-wide Expression
Nat. Biotechnol. 19 (5), 440 (2001) In press
Contact: Scott J. Cain
Athersys, Inc.
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1 (bases 1 to 858)
2 (ani,S., Dahl,T., Sherf,B., Rundlett,S., Jackson,P.D., Perry,R., Cain,S., Dahl,T. Thornton,M., Ramachandran,R., Whittington,J., Lerner,L., Krashoc,D., McElligott,K., Clark,S., Mays,R., Smith,E., Velsoo,M., Hess,J., Cothren,K., Lo,K., Offenbacher,J., Danzig,J.
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RSI16188 Athersys KAUE Library Homo sapiens CDNA, mRNA sequence.
BG196956 GI:13718643
                                                                                                                                       Ontract: Zegoland Han
Contract: Zegoland Han
Chinese National Human Genome Center at Shanghai
351 Guo Shoujing Road, Zhangjiang Hi-Tech Park, Pudong, Shanghai
201203, P. R. China
Tel: 86-21-50801919(ex.45)
Fax: 86-21-50801922
Email: hanzgérdyc:sh.cn
This clone is available at CHGC in Shanghai.
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                                                                                                                                                                                                                                                                                                                                                                                      /tissue_type="hepatocellular carcinoma"
/dev_stage="Adult"
/lab_host="SOLR"
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20.0%; Score 187; DB 10;
Best Local Similarity 100.0%; Pred. No. 5.2e-48;
Matches 187; Conservative 0; Mismatches 0;
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/db_xref="taxon:9606"
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BG196956/c
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                       This read has been verified (found to hit its original self in the correct orientation)
                                                                                             Contact: Robert Strausberg, Ph.D.
Email: cgapbs-rémail.nih.gov
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
This read is a RESEQUENCE of a previously sequenced human clone
Original clone citation: see original entry for original citation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AV700083 760 bp mRNA EST 25-SEP-2000
AV700083 GKC Homo sapiens cDNA clone GKCAbF04 3', mRNA sequence.
                           NCI-CGAP http://www.ncbi.nlm.nih.yov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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Possible reversed clone: similarity on wrong sr

Insert Length: 874 Std Error: 0.00

Seq primer: -400F from Gibco.

High quality sequence stop: 460.

Location/qualifiers

1. 620

/db_xref="CDB:575683"

/db_xref="CDB:575683"

/db_xref="CDB:575683"

/clone="Inbe": Soares breast 3NbHBst"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cuery Match 20.0%; Score 187; DB 10; best Local Similarity 100.0%; Pred. No. 6.1e-48; Matches 187; Conservative 0; Mismatches 0;
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AV700083.1 GI:10302054
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Unpublished (1997)
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AV700083/c
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/organism="Homo sapiens"
/db_xref="taxon:9606"
/db_xref="taxon:9606"
/clone_lib="Arhersys RaGE Library"
/cell_line="Hill080"
/note="see 'Creation of Genome-wide Protein Expression
/note="see 'Creation of Genome-wide Protein Expression"
/note="see 'Creation of Genome-wide Protein Expression
/note="see 'Creation of Genome-wide Protein Expression of Genome-wide Protein Expression of Genome-wide Protein Expression of Genome-wide Protein Expression of Genome-wide Protein Expression
/note="see 'Creation of Genome-wide Protein Expression of Genome
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Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Bummalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

(bases 1 to 877)

Harrington, J.J., Sherf.B., Rundlett.S., Jackson, P.D., Perry, R.,

Harrington, J.J., Thornton, M., Ramachandran, R., Whittington, J.,

Lerner, L., Krashoc, D., McElligott, K., Clark, S., Mays, R., Smith, E.,

Veloso, N., Hess, J., Cothren, K., Lo, K., Offenbacher, J., Danzig, J.
/clone_lib-"Athersys RAGE Library"
/cell_line="HI1080"
/note="See 'Creation of Genome-wide Protein Expression
Libraries using Random Activation of Gene Expression',
Nature Biotechnology, in press. Note that even though the
cell type indicaced is HT1080, since a random activation
method was used, these sequence tags are not necessarily
expressed in HT1080 under normal circumstances.

150 c 156 g 265 t lothers
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Nat. Biotechnol. 19 (5), 440 (2001) In press
Contact: Scott J. Cain
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RST12059 Athersys RAGE Library Homo sapiens CDNA, mRNA sequence.
BG192934
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1201 Carnegie Ave, Cleveland, OH 44115, USA
Tel: 216 431 9500
Fax: 216 361 9596
Fax: 216 361 9596
Fmail: scain@athersys.com
High quality sequence stop: 414.
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100.0%; Pred. No. 4.7e-48;
iive 0; Mismatches 0;
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostcmi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 861)
Harrington, J.J., Sherf, B., Rundlett, S., Jackson, P.D., Perry, R.,
Harrington, J., Thornton, M., Ramachandran, R., Whittington, J.,
Lerner, L., Krashoc, D., McElligott, K., Clark, S., Mays, R., Smith, E.,
Veloso, N., Hess, J., Cothren, K., Lo, K., Offenbacher, J., Danzig, J.
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Nat. Biotechnol. 19 (5), 440 (2001) In press
Contact: Scott J. Cain
                                                                                                                                                                                                                             /organism="Homo sapiens"
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/note="See 'Creation of Genome-wide Protein Expression
/libraries using Random Activation of Gene Expression
/ Nature Biotechnology, in press. Note that even though the
cell type indicated is HT1080, since a random activation
method was used, these sequence tags are not necessarily
a 161 c 180 g 260 t
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RST37618 Athersys RAGE Library Homo sapiens CDNA, mRNA sequence.
BG217894
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3201 carnegie Ave, Cleveland, OH 44115, USA
Tel: 216 431 9900
Fax: 216 361 9596
Email: scain@athersys.com
                                      USA
                             3201 Carnegie Ave, Cleveland, OH 44115, Tel: 216 431 9900
Fax: 216 361 9596
Email: scainGathersys.com
High quality sequence stop: 417.
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/db_xref="taxon:9606"
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Matches 178; Conservative
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/db_xref="taxon:9606"
/db_xref="taxon:9606"
/colone_lib=Athersys RAGE Library"
/cell_line="Hr1080"
/note="See 'Creation of Genome-wide Protein Expression
/Inbraries using Random Activation of Gene Expression
/ Nature Biotechnology, in press. Note that even though the cell type indicated is Hr1080, since a random activation method was used, these sequence tags are not necessarily expressed in Hr1080 under normal circumstances.

a 144 c 225 g 255 t lothers
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Cain,S., Dahl,T., Thornton,M., Ramachandran,R., Whittington,J.,
Lerner,L., Krashoc,D., McElligott,K., Clark,S., Mays,R., Smith,E.,
Veloso,N., Hess,J., Cothren,K., Lo,K., Offenbacher,J., Danzig,J.
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Enkaryoda, Metazoa, Chordata; Craniata, Vertebrata; Euteleostcmi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases I to 882)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and Ducar,M.
Creation of Genome-wide Protein Expression Libraries using Random
                                                                                                                                                                                                                                                                                                                                                                                                      BG196467 682 bp mRNA EST 21-APR-2601
RST15689 Athersys RAGE Library Homo sapiens CDNA, mRNA sequence.
BG196467
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                                                          Length
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Nat. Biotechnol. 19 (5), 440 (2001) In press
Contact: Scott J. Cain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Athersys, Inc.
3201 carnegle Ave, Cleveland, OH 44115, USA
Tel: 216 431 9900
Fax: 216 361 9596
                                                         DB 11;
4.6e-48;
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O
                                                                                         0; Mismatches
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High quality sequence stop: 421.
Location/Qualifiers
                                                       Score 187;
Pred. No.
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                                                          20.0%;
100.0%;
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Matches 187; Conservative
                                                                                         187; Conservative
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BG196467/c
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/downerson.gov RAGE Library.
/coll line="HT1080"
/coll rype indicated is HT1080, since a random activation method was used, these sequence tays are not necessarily expressed in HT1080 under normal circumstances.
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Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia: Eutheria: Primates; Catarrhiu; Hominidae; Homo.
1 (bases 1 to 859)
Harrigtton,J.J., Sherf,B., Rundlett,S., Jackson,P.D., Perry,R.,
Cain,S., Dahl,T., Thornton,M., Ramachandran,R., Whittington,J.,
Lerner,L., Krashoc,D., McElligott,K., Clark,S., Mays,R., Smith,E.,
Veloso,N., Hess,J., Cothren,K., Lo,K., Offenbächer,J., Danzig,J.
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Creation of Genome-wide Protein Expression Libraries using Rar...m
Activation of Gene Expression
Nat. Biotechnol. 19 (5), 440 (2001) In press
Contact: Scott J. Cain
                                                                                                                                                                                                                                                                                                                                                       BG205754 859 bp mRNA EST 21-APR-2001
RST25188 Athersys kACE Library Homo sapiens CLNA, mRNA sequence.
BG205754
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100.0%; Pred. No. 2.6e-45;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Athersys, Inc. 3201 Carnegie Ave, Cleveland, OH 44115, Tel: 216 431 9900 Fax: 216 361 9596 Email: scain@athersys.com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism-"Homo sapiens"
/db_xref="taxon:9606"
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Location/Qualifiers
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/clone_lib="Athersys RAGE Library"
/cell_line="HTH1080"
/note="See 'Creation of Genome-wide Protein Expression
/ibraries using Random Activation of Gene Expression
/Nature Biotechnology, in press. Note that even though the
cell type indicated is HT1080, since a random activation
method was used, these sequence tags are not necessarily
expressed in HT1080 under normal circumstances."
                                                                                                                                                                              Eukaryota: Merazoa; Chordata; Craniata: Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini: Hominidae: Homo.

1 (bases 1 to 807)

1 tharington, J.J., Sherf, B., Rundlett, S., Jackson, P.D., Perry, R., Cain, S., Dahl, T. Thornton, M., Ramachandran, R., Whittington, J., Lerner, L., Krashoc, D., McElligott, K., Clark, S., Mays, R., Smith, E., Veloso, N., Hess, J., Cothren, K., Lo, K., Olienbacher, J., Danzig, J.
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                                                                                                                                                                                                                                                                                                 and Ducar M. Creation of Genome-wide Protein Expression Libraries using Random Activation of Gene Expression Nat. Biotechnol. 19 (5), 440 (2001) In press Contact: Scott J. Cain
                                                                BG212152 807 bp mRNA EST 21-APR-2001
RST31623 Athersys RACE Library Homo sapiens CDNA, mRNA sequence-
BG212152 GI:13733327
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3201 Carnegie Ave, Cleveland, OH 44115, USA Tel: 216 431 9900
Fax: 216 361 9596
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Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: scain@athersys.com
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AW472756
AW472756.1 GI:7042862
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Leukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo.

Deses 1 to 239)

Rol-Godb http://www.ncbi.nlm.nih.gov/ncicgap.

Rol-Godb http://www.ncbi.nlm.nih.gov/ncicgap.

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Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M., Holman,M., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,M., Parsons,J.,
M., Hultman,M., Kucaba,T., Le,M., Tan,F., Trevaskis,E., Waterston
Rifkin,L., Rohlfing,T., Soares,M., Tan,F., Trevaskis,E., Waterston
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Manmalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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y138cll.rl Soares breast 3NbHBSt Homo sapiens cDNA clone
IMAGE:160532 5' similar to SP:CP4B_RABIT P15128 CYTOCHROME P450
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/organism="Homo sapiens"

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/rissue_Lype="well-differentiated endometrial

/lab_host="DH10B"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              70 t
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H21976
H21976.1 GI:890671
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us-09-248-178-55.rst

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Rifkin, L., Rohlfing, T., Soares, M., Tan. F., Irevaskis, E., Waterston , R., Williamson, A., Wohldmann, P. and Wilson, R.
The Washur Merc Est Project
Unpublished (1953)
Contact: Wilson RK
Mashington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
Fax: 314 286 1810
Email: estiwatson.wustl.edu
Insert Size: 874
High quality sequence stops: 297
Source: LMAGE Consortium, LLNL
This clone is available royalty free through LLNL; contact the
IMAGE Consortium (infoilmage.llnl.gov) for further information.
Insert Length: 874 Std Error: 0.00
Seq primer: Promega - 21m13
High quality services of 2000 or further information.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa: Chordata; Craniata: Vertebrata; Euteleostomi; Mammalia: Eutheria; Primates; Catarrhini: Hominidae; Homo. 1 (bases 1 to 444)
Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M., Holman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               H21977 444 bp mRNA EST 06-JUL-1995
y138c11.s1 Scares breast 3NbHBst Homo sapiens cDNA clone
IMAGE:160532 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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/organism-"Homo sapiens"
/db_xref="GDE:575683"
/db_xref="Laxon:9606"
/clone="IMAGE:161526"
/clone="IMAGE:161526"
/sex="Female"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13.3%; Score 124; DB 11;
100.0%; Pred. No. 1.5e-28;
Live 0; Mismatches 0;
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Location/Qualifiers
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H21977.1 GI:890672
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, 66 c
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Matches 124; Conserv
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ORIGIN
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KEYWORDS
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                                                                                                            TITLE
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/cloue=lib="Soares breast 3NbHBst"
/sex="Femals"
/dev_stage="adult"
/dev_stage="adult"
/dev_stage="dulugh (ampicillin resistant)"
/note="Organ: breast: Vector: pT713D (Pharmacia) with a
strand cDNA was primed with a Not I - oligo(dT) primer is
double-stranded cDNA was ligated to Eco RI adaptors
(Pharmacia), digested with Not I and cloned into the Not I
and Eco RI sites of a modified pT773 vector (Pharmacia)
Library went through one round of normalization to a Cot =
Double interval in the constructed by Bento Soares and M.Fatima
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
;
                              The WashU Merck EST Project
The WashU Merck EST Project
Unpublished (1995)
Contact: Wilson RK
Washington University School of Medicine
4444 Forest Park Wash Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
Fax: 318 2800
Fax: 31
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 421)
11 (bases 1 to 421)
12 (bases 1 to 421)
13 (bases 1 to 421)
14 (bases 1 to 421)
15 (bases 1 to 421)
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16 (bases 1 to 421)
17 (bases 1 to 421)
18 (bases 1 to 421)
18 (bases 1 to 421)
18 (bases 1 to 421)
19 (bases 1 to 421)
19
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y148904.s1 Soares breast 3NbHBst Homo sapiens cDNA clone
HAGE:161526 3', mRNA sequence.
H25577 GI:894700
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/db_xref="GDB:574579"
/db_xref="taxon:9606"
/clone="IMAGE:160532"
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Matches 136; Conservative
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KEYWORDS
SOURCE
ORGANISM
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H25577/c
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JOURNAL
COMMENT
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Op ò QQ ò

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/organism="Homo sapiens"
/do_xref="taxon:9606"
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/colone_lib="Athersys RAGE Library"
/coll_line="HTH1080"
/note="See 'Creation of Genome-wide Protein Expression
/libraries using Random Activation of Gene Expression/
Nature Biotechnology, in press. Note that even though the
cell type indicated is HT1080, since a random activation
method was used, these sequence tags are not necessarily
a 135 c 217 g 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Creation of Genome-wide Protein Expression Libraries using Random Activation of Gene Expression
Nat. Biotechnol. 19 (5), 440 (2001) In press
Contact: Scott J. Cain
Cain,S., Dahl.T., Thornton,M., Ramachandran,K., Whittington,J.,
Lerner,L., Krashoc,D., McElligott,K., Clark,S., Mays,R., Smith,E.,
veloso,N., Hess,J., Cothren,K., Lo,K., Offenbacher,J., Danzig,J.
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Harrington, J.J., Sherf, B., Kundlett, S., Jackson, P.D., Perry, R., Harrington, J.J., Thornton, M., Ramachandran, R., Whittington, J., Lerner, L., Krashoc, D., McElligott, K., Clark, S., Mays, R., Smith, E. Veloso, N., Hess, J., Cothren, K., Lo, K., Offenbacher, J., Danzig, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                          and Ducar,M.
Creation of Genome-wide Protein Expression Libraries using Random
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BG204180 252 bp mRNA EST 21-AFK-2001
RST23576 Athersys RAGE Library Homo sapiens CDNA, mRNA sequence.
BG204180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       782 gtaactagtggtagagtggctttcaagcatagtttgatcaaaactccactcagtatctgc 841
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                                                                                                                 Activation of Gene Expression
Nat. Biotechnol. 19 (5), 440 (2001) In press
Contact: Scott J. Cain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3201 Carnegie Ave, Cleveland, OH 44115, USA Tel: 216 431 9900 Fax: 216 361 9596 Email: scaintathersys.com
                                                                                                                                                                                      Athersys, Inc.
3201 Carnegie Ave, Cleveland, OH 44115, USA
TIE1: 216 431 9900
Fax: 216 361 9596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12.8%; Score 119; DB 11;
100.0%; Pred. No. 2.8e-27;
iive 0; Mismatches 0;
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                                                                                                                                                                                                                                                                                                stop: 425
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Location/Qualifiers
                                                                                                                                                                                                                                                                          Email: scain@athersys.com
High quality sequence stop: 4
Location/Qualifiers
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Best Local Similarity
Matches 119; Conserv
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/lab_host="DH108 (ampicillin resistant)"
/lab_host="DH108 (ampicillin resistant)"
/lab_host="DH108 (ampicillin resistant)"
/note="Corgan: breast: Vector: pT713b (Pharmacia) with a
modified polylinker; Site_1: Not 1; Site_2: Eco RI; Ist
strand cDNA was primed with a Not I - oligo(dI) primer [5'
TGTARCAARTGAAGTGGGACGCCCTIIIITITITITITITIII II 3'),
double-stranded cDNA was ligated to Eco RI adaptors
(Pharmacia), digested with Not I and cloned into the Not I
and Eco RI sites of a modified pT7I vector (Pharmacia).
Library went through one round of normalization to a Cot =
20. Library constructed by Bento Soares and ArFatima
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       ,M., Hultman,M., Kucaba,T., Le,M., Lennon,G., Marra,M., Parsons,J., Rifkin,L., Rohlfing,T., Soares,M., Tan,F., Trevaskis,E., Waterston,R., Williamson,A., Wohldmann,P. and Wilson,R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 822)
Harrington, J.J., Sherf, B., Rundlett, S., Jackson, P.D., Perry, R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BG213096 822 bp mRNA EST 21-APR-2001
RST32700 Athersys RAGE Library Homo sapiens cbNA, mRNA sequence.
                                                                                                                                                                                                                                    Email: estewatson.wustl.edu
Insert Size: 870
High quality sequences tops: 241
Source: INAGE Consortium, LLNI.
This clone is available royalty-free through LLNL; contact the INAGE Consortium (intoéimage.llnl.gov) for further information.
Insert Length: 870 Std Error: 0.00
Seq primer: Promega -21ml3
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                                                                                                                          Contact: Wilson RK
Washington University School or Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MJ 63108
Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 444;
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/organism="Homo sapier.s"
/db_xref="GDB:574575"
/db_xref="taxon:9606"
/clone="InbaGE:160532"
/clone="inb="Soares breast 3NbHBst"
/sex="Female"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 123; DB 11;
Pred. No. 2.8e-28;
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BG213096.1 GI:13734783
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                                                                                                       Unpublished (1995)
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AUSUS963 729 bp DNA GSS 29-APR-1999
RPCI-11-316A11.TJ RPCI-11 Homo sapiens genomic clone RPCI-11-316A11
, DNA Sequence.
AQS05963
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/db_xref="taxon:9606"
/cloin=lib="Athersys RAGE Library"
/ceil_line="H1900"
/ncie="See 'Creation of Genome-wide Protein Expression
/ncie="See 'Creation of Genome-wide Expression"
/ncie="See 'Creation of Genome-wide Expression of Geno
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eut.eria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 267)
Harrington, J.J., Sherf, B., Rundlett, S., Jackson, P.D., Perry, R.,
Cain, S., Dahl, T., Thornton, M., Ramachandran, R., Whittington, J.,
Lerner, L., Krusino, D., NoElligott, K., Clark, S., Mays, R., Smith, E.,
Veloso, N., Hess, J., Cothren, K., Lo, K., Offenbacher, J., Danzig, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          and Ducar, M.

Creation of Genome-wide Protein Expression Libraries using Random Activation of Gene Expression
Nat. Biotechnol. 19 (5), 440 (2001) In press
Contact: Scott J. Cain
Athersys, Inc.
                                                                                                                                                                                                                                                                                      BG214692 267 bp mRNA EST 21-APR-2001
RST34341 Athersys RAGE Library Homo sapiens CDNA, mRNA sequence.
BG214692
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Length 267;
                                                                                                          Indels
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Fax: 216 361 9596
Email: scain:athersys.com
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hes 0;
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ive 0; Mismatches
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Location/Qualifiers
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Matches 77; Conserv
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/ocel="See Creation of Genome-wide Protein Expression
/note="See Creation of Genome-wide Protein Expression
/note="See Creation of Genome-wide Protein Expression
Libraries using Random Activation of Gene Expression
/ Nature Biotechnology, in press. Note that even though the cell type indicated is HT1080, since a random activation
method was used, these sequence tags are not necessarily
expressed in HT1080 under normal circumstances."
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                                /clone_lib="Athersys RAGE Library"
/cell_line="HT1080"
/note="See 'Creation of Genome-wide Protein Expression
Libraries using Random Activation of Gene Expression',
Nature Biotechnology, in press. Note that even though the
cell type indicated is HT1080, since a random activation
method was used, these sequence tags are not necessarily
expressed in HT1080 under normal circumstances.
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Eutaryotas, Metazoa; Chordata; Craniata: Vertebrata; Euteleostomi;
Buarryotas, Metazoa; Chordata; Catarrhini; Hominidae; Homo.
1 (bases 1 to 240)
1 (bases 1 to 240)
2 Sherf,B., Rundlett,S., Jackson,P.D., Perry,R.,
Cain,S., Dahl,T., Thorton,M., Ramachandran,R., Whittington,J.,
Lerner,L., Krashoc,D., McElligott,K., Clark,S., Mays,R., Smith,E.,
Veloso,N., Hess,J., Cothren,K., Lo,K., Offenbacher,J., Danzig,J.
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Nat. Biotechnol. 19 (5), 440 (2001) In press
Contact: Scott J. Cain
Athersys, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3201 Carnegie Ave, Cleveland, OH 44115, USA Tel: 216 431 9900
Fax: 216 361 9596
Email: scain@athersys.com
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100.0%; Pred. No. 1.5e-26;
tive 0; Mismatches 0;
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Location/Qualifiers
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Matches 108; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                       118; Conservative
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Contact: Nahairas GG, Wallace JC, Hood I.
High Throughput Sequencing Center
University of Washington
101 Queen Anne Anne North, Seattle, WA 98109, USA
101 Queen Anne Anne North, Seattle, WA 98109, USA
101 Closes are derived from the human BAC library RPC1-11. For BAC
Clones are derived from the human BAC library RPC1-11. For BAC
Library availability, please contact Pieter de Jong
Library availability avai
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Mahairas, G.G., Wallace, J.C., Smith, K., Swartzell, S., Holzman, T., Keller, A., Shaker, R., Furlong, J., Young, J., Zhao, S., Adams, H.D. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note="Vector: pBACe3.6; Site_1: EcoRI; Site_2: EcoRI;
Male blood DNA was isolated from one randomly chosen donor
and partially digested with a combination of EcoRI and
EcoRI Methylase. Size selected DNA was cloned into the
pBACe3.6 vector at EcoRI sites"
109 c 112 g 155 t 4 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 High Throughout Sequencing Center University of Washington University of Washington 401 Queen Anne Avenue North, Seattle, WA 98109, USA 701 Queen Anne Avenue North, Seattle, WA 98109, USA 701 Gueen Anne Avenue North, Seattle, WA 98109, USA 701 Seat (206) 616-3887 Email: jwallaceêu washington.edu Clones are derived from the human BAC library RPC1-11. For BAC Clones are availability, please contact Pieter de Jong (pieter@dejong.mad.buffalo.edu, Clones may be purchased from BACPAC Resources (http://bacpac.med.buffalo.edu/ordering_bac.htm)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence-tagged connectors: A sequence approach to mapping and scanning the human genome
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99380589
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1.8e-08;
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100.0%; Pred. No. 1.8
tive 0; Mismatches
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/db_xref="taxon:9606"
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Location/Qualifiers
1. .458
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Matches 58; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                              Fax: 301 838 0208
Email: hbe@tigr.org
Clones are derived from the human BAC library RPCI-11. For BAC
library availability, please contact Pieter de Jony
(pieter@dejong.med.buffalo.edu). Clones may be purchased from
ABACPAC Resources (http://beapec.med.buffalo.edu/ordering) or from
Research Genet cs (info@tesgen.com). BAC end search page:
http://www.tigr.org/tdb/humgen/bac_end_search/bac_end_search.html.
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                                                                    Homo sapiens
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
1 (bases 1 to 729)
                                                                                                                                                                                   Zhao, S., Adams, M.D., Nierman, W., Malek, J., de Jong, F. tand Venter
                                                                                                                                                                                                                                    Use of BAC End Sequences from Library RPCI-11 for Sequence-Ready
Map Building
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/note="Vector: pBACe3.5; Site_1: EcoRI; Site_2: EcoRI;
RPCIII Human Male BAC Library"
in 166 c 137 g 226 t
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HS_5166_A1_E01_T7A RPCI-11 Human Male BAC Library Hcm. sapiens
AQ450557
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                                                                                                                                                                                                                                                                                              Contact: Shaying 2hao, William Nierman, Mark Adams Contact: Shaying 2hao, William Nierman, Mark Adams Department of Eukaryotic Genomics
The Institute for Genomic Research
79712 Medical Center Dr., Rockville, MD 20850
Tel: 301 838 0200
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hes 0;
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/db_xref="GDB:7620970"
/db_xref="taxon:9606"
/clone="RPCT-11-316A11"
/clone_lib="RPCT-11"
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1. .729
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/clone_lib-*UI-R-CAl*
/lab_host="EHIOB (Life Technologies)* with a modified /note="Vector: pT713D-Pac (Pharmacia) with a modified /note="Vector: pT713D-Pac (Pharmacia) with a UI-R-CAl polylinker; Site_1: Not I: Site_2: Eco RI; The UI-R-CAl library is a subtracted library derived from the following tissues: thalamus, cerebellum, hypothalamus, medulah, pons midbrain, cerebral cortex, corpus striatum, testis, and hippocampus. For a detailed description of the library from which this clone was derived, please visit our web site at ratest-eng.uiowa-edu. The subtraction has been previously described in (Bonaldo, Lennon and Soares, Genome Research 6:791-806, 1956)
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Lewin,H.A., Soares,M.B., Rebeiz,M., Pardinas,J., Liu,L. and Larson
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Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Bovinae; Bos.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BF043410 483 bp mRNA EST 10-OCT-2000 BP2560cub20D12 Soares normalized bovine placenta Bos taurus CDNA clone BP250006B20D12 5', mKNA sequence.
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/db_xref="taxon:9913"
/clone="19550006820012"
/clone=lib="Soares normalized bovine placenta"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2.9%; Score 27; DB 11; Length 347; 100.0%; Pred. No. 73; 0; Indels stive
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Location/Qualifiers
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TAG_TISSUE-hippocampus
TAG_SEQ-GATIG"
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BACKWARD: ATTAACCCTCACTAAAG
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Best Local Similarity 100.0
Matches 27; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note="Vector: pBACe3.6; Site_1: EcoRI; Site_2: EcoRI;
Male blood DNA was isolated from one randomly chosen do.or
and partially digested with a combination of EcoRI and
EcoRI Methylase. Size selected DNA was cloned into the
pBACe3.6 vector at EcoRI sites"

1 7 others
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
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The sequence contained an oligo-dT track that was present in the
Oligonucleotide that was used to prime the synthesis of first
strand cDNA and therefore this may represent a bonafide poly A
tail. The sequence tag present in the cDNA between the NotI site
and the oligo-dT track served to identify it as a clone from the
normalized hippocampus library cDNA Library Preparation: M.B.
Soares Lab Clone distribution: clones will be available through
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 (bases 1 to 347)
Bonaldo,M.F., Lennon,G. and Soares,M.B.
Normalization and subtraction: two approaches to facilitate gene
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451 Eckstein Medical Research Building Iowa City, IA 52242, USA
451 Eckstein Medical Research Eurilding Iowa City, IA 52242, USA
451 319 335 9565
Fax: 319 335 9565
              or from Resear h Genetics (info@resgen.com). BAC end Web Server: http://www.htsc.washington.edu plate: 713 row: O column: 5 Seq primer: 77 Class: BAC ends
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BF403239 347 bp mRNA EST 28-NOV-2000 UI-R-CAI-biy-e-15-0-UI.SI UI-R-CAI Rattus norvegicus cDNA clone UI-R-CAI-biy-e-15-0-UI 3', mRNA sequence.
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4.1%; Score 38; DB 13; Length 521;
Best Local Similarity 100.0%; Pred. No. 0.023;
Matches 38; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                    /organism="Homo sapiens"
/db.xref="Eaxon:8606"
/clone="Plate=173 Col-5 Row=O"
/clone=lib="RPCI-11 Human Male BAC Library"
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/strain="Sprague-Dawley"
/db_xref="taxon:10116"
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                                                                                                                                                                                                  High quality sequence stop: 521.
Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  /sex="male"
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Funding for cattle EST sequencing was provided by the USDA National Research Initiative, Animal Genome Resource Grant AG 99-3205-8534 to H. A. Lewin and J. E. Womack. Base Calling/Quality Scores: PHRED from Washington University Genome Center. Vector Irimmi g: Cross match from Washington University Genome Center PHRAP suite. This sequence is vector free and at least 200 bp in length.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota: Metazoa: Chordata; Craniata: Vertebrata; Euteleostomi;
Bukaryota: Butheria; Cetartiodactyla; Ruminantia: Peccra; Bovoidea;
Bovidae: Bovinae; Bos.
1 (bases 1 to 572)
Lewin, H.A., Soares, M.B., Rebeiz, M., Pardinas, J., Liu, L. and Larson
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Contact: Lewin, H. A.

W. M. Keck Center for Comparative and Functional Genomics
Winiversity of Illinois at Urbana-Champaign
140 Edward R. Madigan Laboratory, 1201 W. Gregory Dr., Urbana,
61801, USA
Feb.: 217 333 5998
Fes.: 217 344 5617
Email: h-lewin@uiuc.edu
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/db_xref="taxon:9913"
/clone="BP250009510011"
/clone="lb="soares normalized bovine placenta"
/lab_host="DH108"
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100.0%; Pred. No. 97;
ive 0; Mismatches u; Indels
                                   DB 10; Length 561;
99;
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BACKWARD: ATTAACCCTCACTAAAG
Insert Length: 572 Std Error: 0.00
Plate: BP250005910 row: D column: 11
Seq primer: AGGGATAACAATTTCACACAGGA
High quality sequence stop: 572.
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                                                                      100.0%; Pred. ...
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                                                       2.8%;
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Soares laboratory and it was constructed and normalized
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W. M. Keck Center for Comparative and Functional Genomics
University of Illinois at Urbana-Champaign
340 Edward R. Madigan Laboratory, 1201 W. Gregory Dr., Urbana,
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